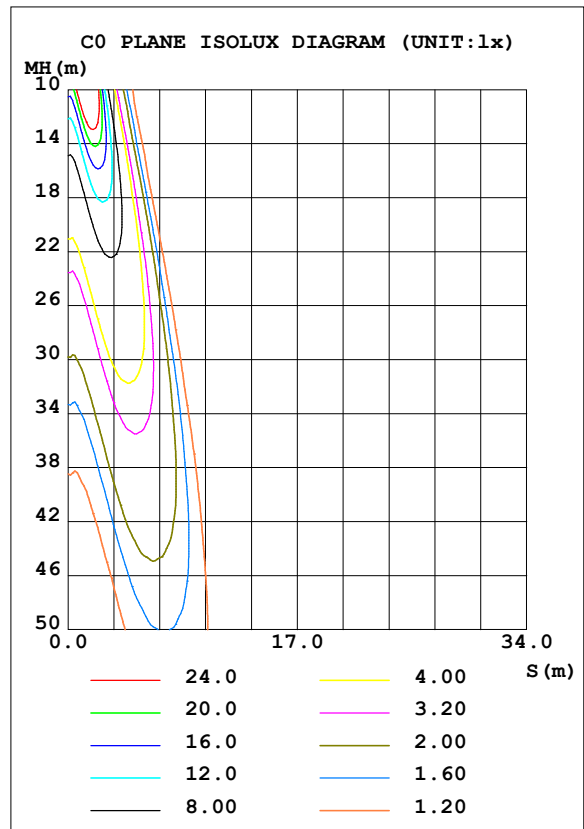
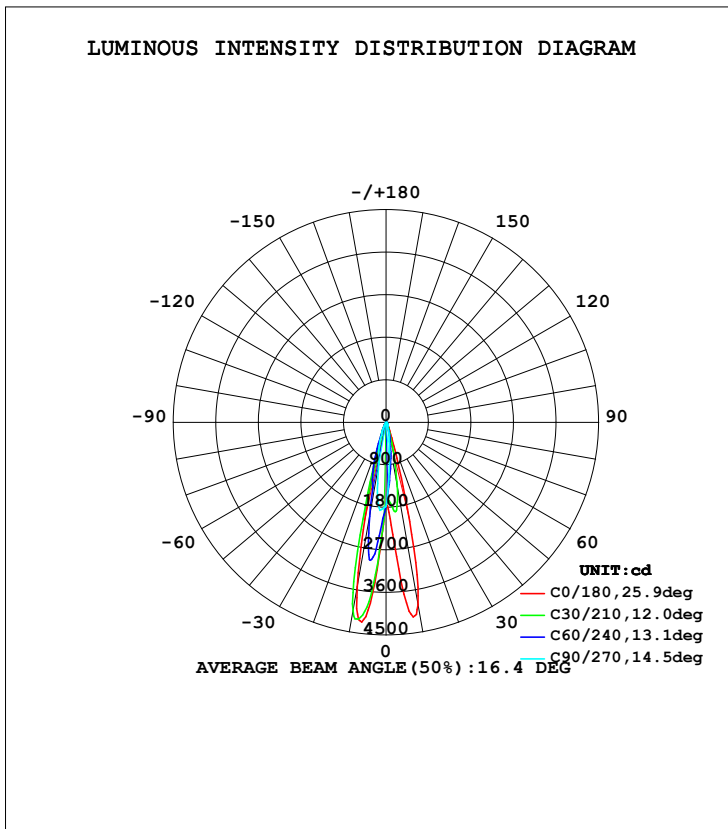


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm		
NAME: REL6LED-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042404
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	REL6LED-WH	I _{max} (cd)	4366	S/MH (C0/180)	0.45
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	0.35
RATED VOLTAGE (V)		TOTAL FLUX (lm)	567.17	η UP, DN (C0-180)	0.0, 33.5
NOMINAL FLUX (lm)	567.175	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 66.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: WLM
Test Date: 2018-04-23

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity: 65.0%
Test Distance: 13.291m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
5	3114	1348	877.4	1651	3844	3346	1783	2584	0- 5	48.87	48.87	8.62,8.62
10	3918	844.8	423.2	876.8	3537	3063	916.0	3074	5- 10	163.9	212.7	37.5,37.5
15	1402	338.5	254.4	328.2	985.2	1078	605.8	1336	10- 15	161.2	373.9	65.9,65.9
20	377.1	190.0	85.54	184.5	301.2	454.3	295.6	551.8	15- 20	84.19	458.1	80.8,80.8
25	173.4	80.36	51.25	77.74	176.2	185.8	167.7	205.1	20- 25	41.77	499.9	88.1,88.1
30	82.15	33.55	16.96	31.33	82.73	89.07	39.91	90.90	25- 30	24.18	524.1	92.4,92.4
35	29.05	18.14	13.65	17.25	29.19	38.66	29.78	37.60	30- 35	11.39	535.5	94.4,94.4
40	14.52	9.947	10.34	9.704	14.13	14.35	19.66	14.29	35- 40	6.159	541.6	95.5,95.5
45	9.298	7.900	7.317	7.947	9.255	10.66	10.57	10.30	40- 45	4.227	545.9	96.2,96.2
50	7.246	6.788	6.545	6.725	7.273	8.595	9.740	8.001	45- 50	3.348	549.2	96.8,96.8
55	6.336	6.106	6.055	5.892	6.293	7.463	9.944	6.682	50- 55	3.139	552.3	97.4,97.4
60	5.704	5.313	5.565	5.206	5.683	7.454	10.15	6.551	55- 60	3.098	555.4	97.9,97.9
65	4.833	4.566	4.734	4.451	4.840	7.258	8.921	6.201	60- 65	2.989	558.4	98.5,98.5
70	3.766	3.689	3.903	3.611	3.721	6.482	7.695	5.627	65- 70	2.674	561.1	98.9,98.9
75	2.973	2.655	2.962	2.567	2.828	5.383	6.137	5.073	70- 75	2.253	563.4	99.3,99.3
80	2.252	1.829	2.021	1.758	1.941	4.170	4.578	4.077	75- 80	1.761	565.1	99.6,99.6
85	1.522	1.071	1.081	1.016	1.189	2.948	3.020	2.997	80- 85	1.263	566.4	99.9,99.9
90	0.0500	0.3202	0.1401	0.2903	0.0500	1.721	1.461	1.901	85- 90	0.7879	567.2	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

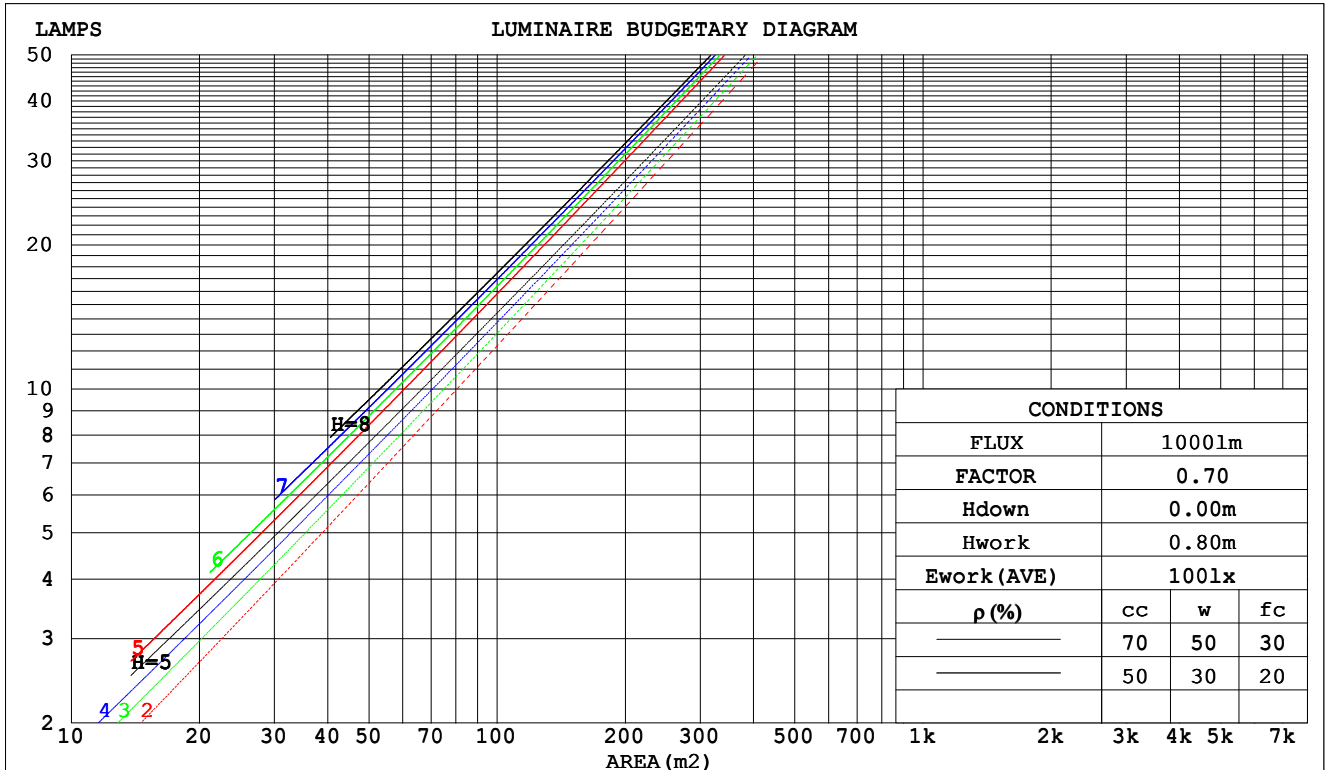
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm		
NAME: REL6LED-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042404
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
	ρw	ρfc	RCR	ρw	ρfc	RCR	ρw	ρfc	RCR	ρw	ρfc	RCR	ρw	ρfc	RCR	0
	50%	20%	RCR:Room Cavity Ratio	50%	20%	RCR	50%	20%	RCR	50%	20%	RCR	50%	20%	RCR	0
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.12	1.10	1.09	1.10	1.08	1.07	1.06	1.05	1.04	1.03	1.02	1.00	.99	.98	.98	.96
2.0	1.07	1.04	1.01	1.05	1.02	.99	1.02	.99	.98	.99	.97	.96	.97	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.95	.98	.96	.93	.96	.94	.92	.94	.92	.90	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.91	.88	.91	.89	.87	.86
5.0	.95	.90	.87	.94	.90	.87	.92	.89	.86	.91	.88	.85	.89	.87	.85	.84
6.0	.91	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.83	.87	.84	.82	.81
7.0	.89	.84	.81	.88	.84	.81	.87	.83	.81	.86	.83	.80	.85	.82	.80	.79
8.0	.86	.82	.79	.85	.81	.79	.84	.81	.78	.84	.80	.78	.83	.80	.78	.77
9.0	.84	.79	.77	.83	.79	.77	.82	.79	.76	.82	.78	.76	.81	.78	.76	.75
10.0	.81	.77	.75	.81	.77	.75	.80	.77	.74	.80	.76	.74	.79	.76	.74	.73



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm		
NAME: REL6LED-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042404
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.146	.083	.026	.140	.080	.025	.127	.073	.023	.116	.067	.021	.105	.061	.020	
2.0	.134	.073	.023	.129	.071	.022	.118	.066	.020	.109	.061	.019	.100	.057	.018	
3.0	.124	.066	.020	.119	.064	.019	.111	.060	.018	.103	.056	.017	.095	.053	.016	
4.0	.115	.060	.018	.111	.058	.017	.104	.055	.016	.097	.052	.016	.091	.049	.015	
5.0	.108	.055	.016	.104	.054	.016	.098	.051	.015	.092	.049	.015	.087	.047	.014	
6.0	.101	.051	.015	.098	.050	.014	.093	.048	.014	.088	.046	.013	.084	.044	.013	
7.0	.096	.047	.013	.093	.046	.013	.089	.045	.013	.084	.043	.013	.080	.042	.012	
8.0	.091	.044	.012	.089	.044	.012	.085	.042	.012	.081	.041	.012	.077	.040	.012	
9.0	.086	.042	.012	.085	.041	.012	.081	.040	.011	.078	.039	.011	.074	.038	.011	
10.0	.082	.040	.011	.081	.039	.011	.078	.038	.011	.075	.037	.011	.072	.036	.010	

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.151	.133	.117	.130	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.013	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.065	.097	.074	.057	.067	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.104	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.096	.068	.047	.083	.059	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.090	.061	.041	.077	.053	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.084	.055	.036	.072	.048	.031	.050	.034	.022	.029	.020	.013	.009	.007	.004	
10.0	.079	.050	.031	.068	.044	.027	.047	.031	.019	.028	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm										
NAME: REL6LED-WH					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:2018042404		
MFR.:					SUR.:0.00362			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	8.2	8.9	8.4	9.0	9.2	7.3	8.0	7.5	8.1	8.3
3H	9.8	10.4	10.0	10.6	10.8	9.2	9.8	9.5	10.0	10.2
4H	10.5	11.1	10.8	11.4	11.6	10.1	10.7	10.3	10.9	11.1
6H	11.2	11.8	11.5	12.0	12.3	10.8	11.4	11.1	11.6	11.9
8H	11.6	12.1	11.9	12.4	12.6	11.1	11.7	11.4	11.9	12.2
12H	11.9	12.4	12.2	12.7	13.0	11.3	11.9	11.7	12.1	12.4
4H 2H	8.8	9.4	9.0	9.6	9.8	8.0	8.6	8.3	8.8	9.1
3H	10.6	11.1	10.9	11.3	11.6	10.1	10.6	10.4	10.9	11.1
4H	11.5	12.0	11.8	12.3	12.6	11.0	11.5	11.4	11.8	12.1
6H	12.4	12.8	12.7	13.1	13.5	11.9	12.3	12.3	12.7	13.0
8H	12.8	13.2	13.2	13.5	13.9	12.3	12.7	12.6	13.0	13.4
12H	13.2	13.5	13.6	13.9	14.3	12.6	12.9	13.0	13.3	13.7
8H 4H	11.7	12.1	12.1	12.5	12.9	11.3	11.7	11.7	12.1	12.5
6H	12.8	13.1	13.2	13.5	13.9	12.3	12.7	12.8	13.1	13.5
8H	13.3	13.6	13.7	14.0	14.4	12.8	13.1	13.2	13.5	14.0
12H	13.9	14.1	14.3	14.6	15.0	13.2	13.5	13.7	13.9	14.4
12H 4H	11.7	12.1	12.2	12.5	12.9	11.4	11.7	11.8	12.1	12.5
6H	12.8	13.1	13.3	13.5	14.0	12.4	12.7	12.9	13.1	13.6
8H	13.4	13.7	13.9	14.1	14.6	12.9	13.2	13.4	13.6	14.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.6 / - 0.2					+ 0.1 / - 0.2				
2.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 567.2 lm Total Lamp Luminous Flux. (8log(F/F0) = -2.0)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm		
NAME: REL6LED-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042404
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	89	83	79	88	83	79	88	82	79	76
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	98	105	101	98	103	99	97	92
2.00	109	105	101	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

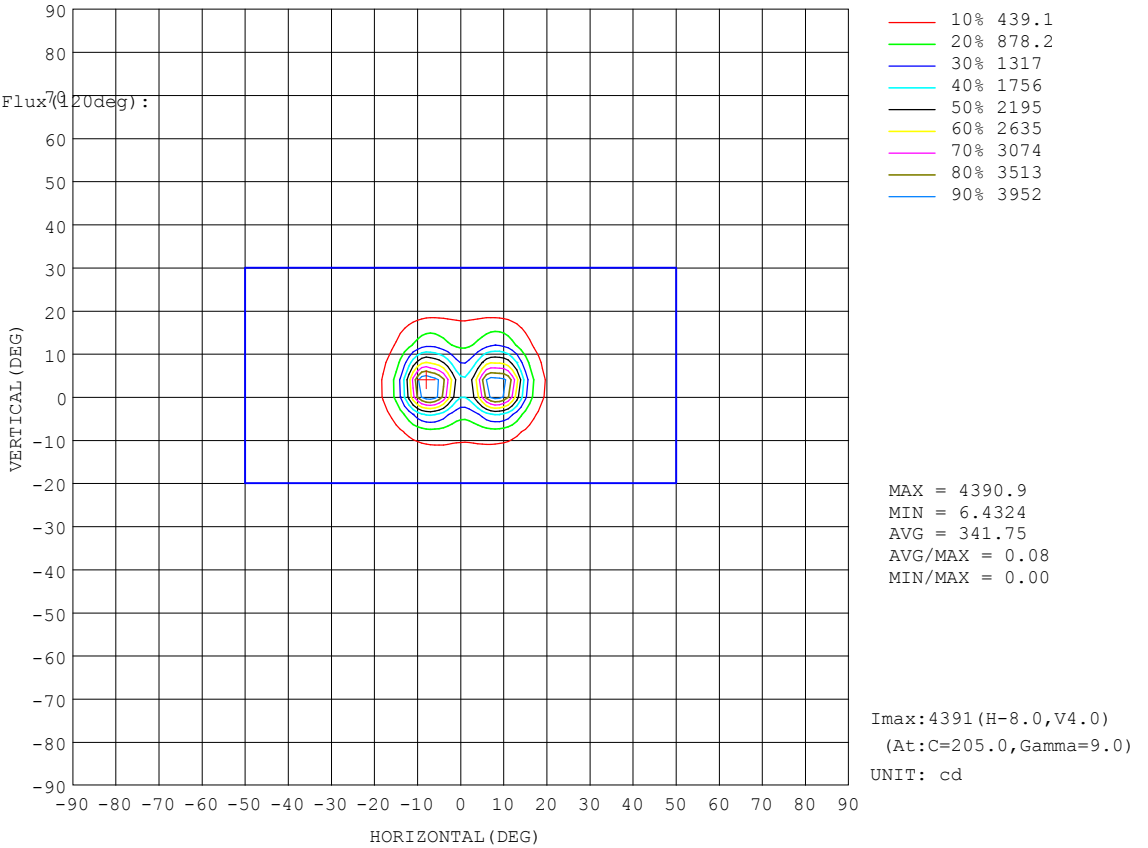
Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm		
NAME: REL6LED-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042404
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

Conical surface Flux(90deg):

545.86 lm
%lum = 96.2%
%lamp = 96.2%

Conical surface Flux(70deg):

555.45 lm
%lum = 97.9%
%lamp = 97.9%

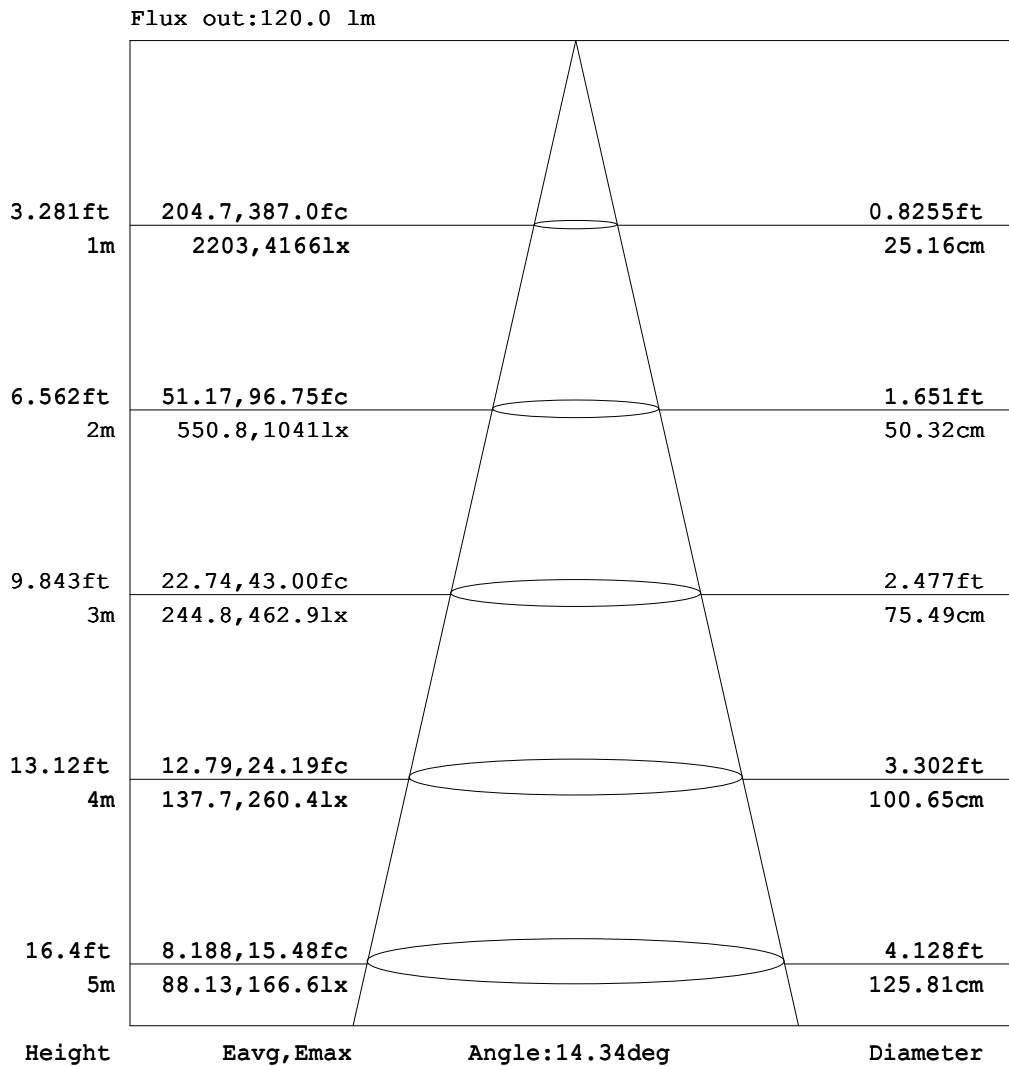


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WLM
Test Date:2018-04-23

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.291m [K=1.0000]
Remarks:

AAI Figure

Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm		
NAME: REL6LED-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042404
MFR.:	SUR.:0.00362	PROTECTION ANGLE:



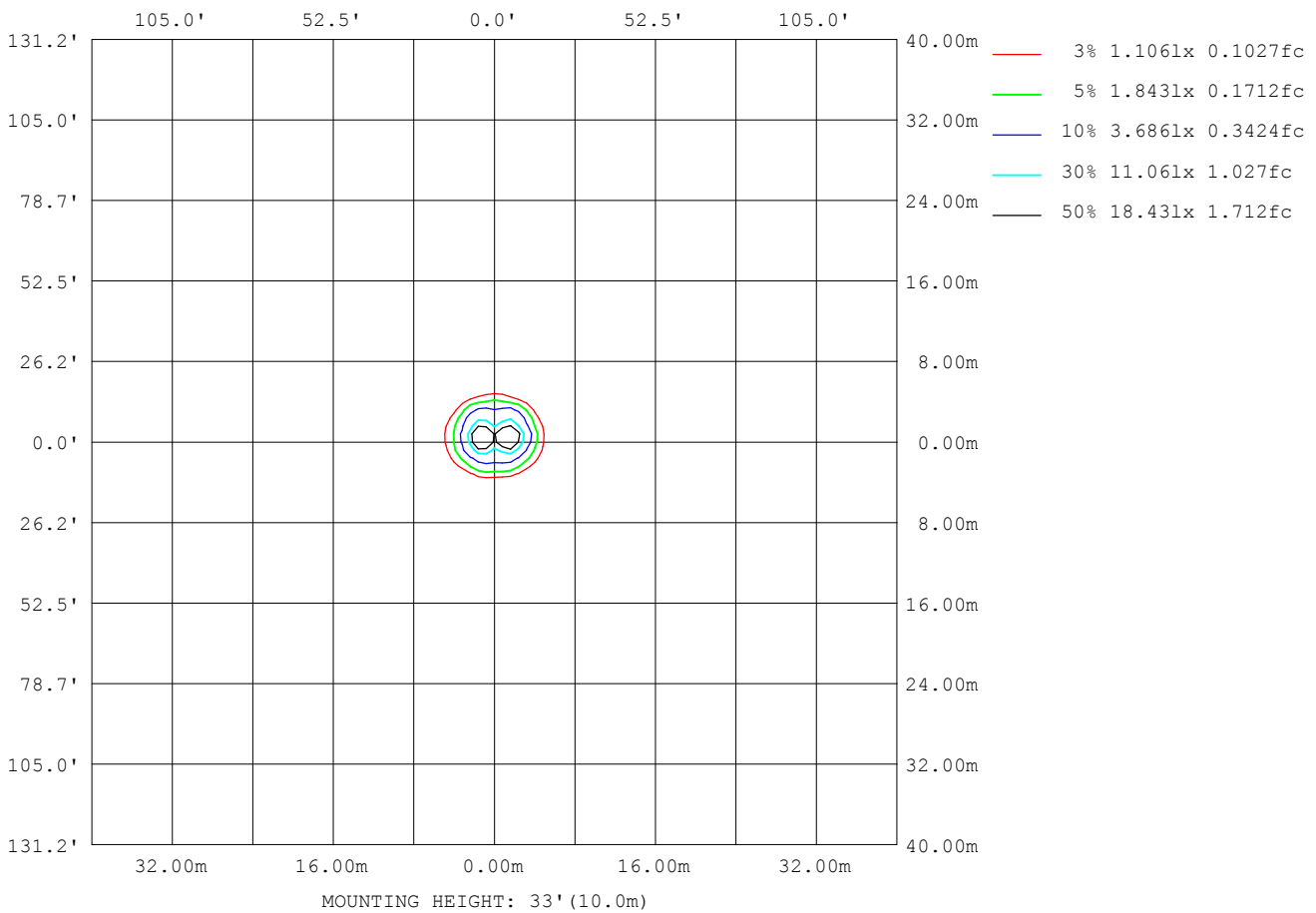
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

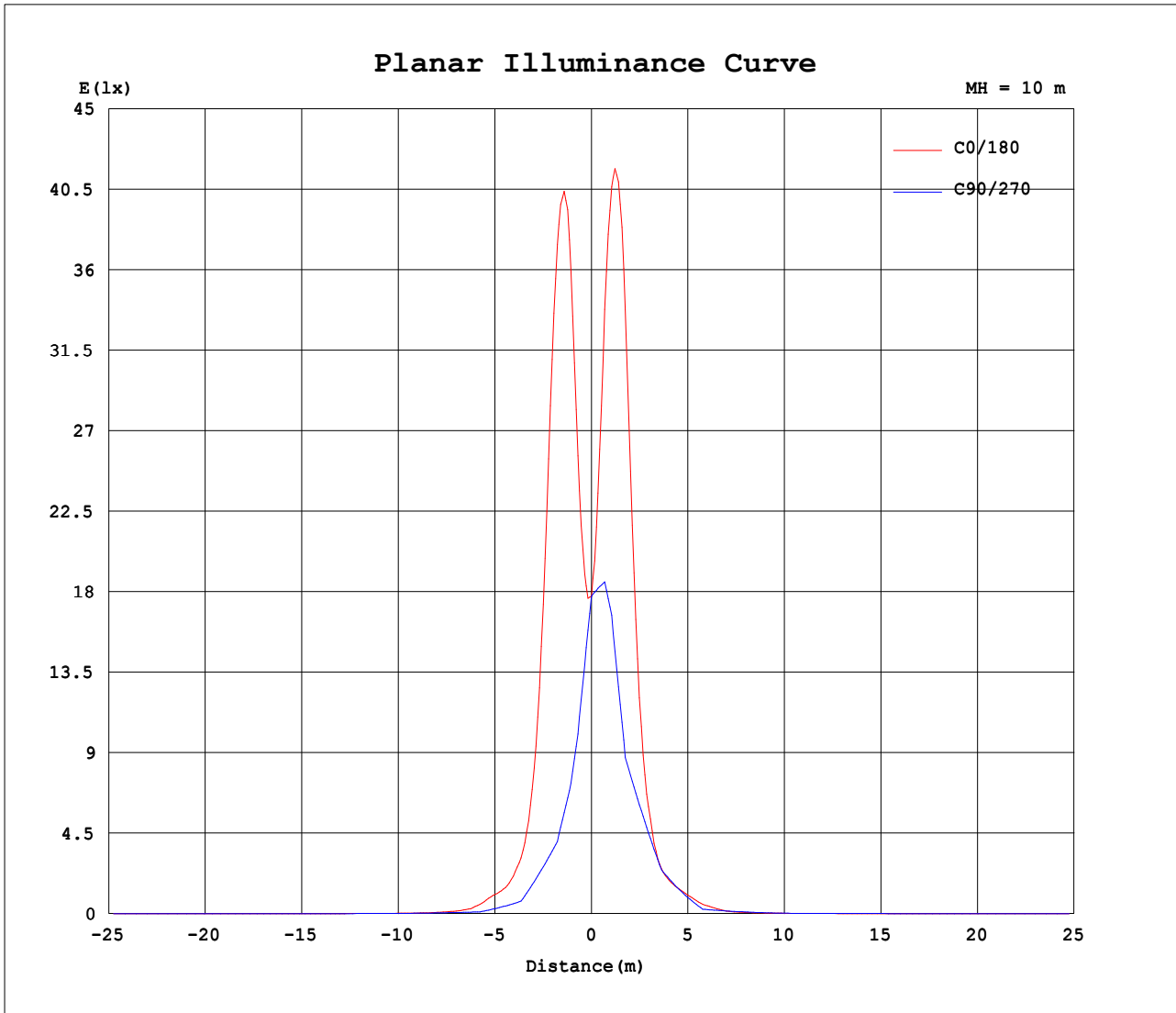
Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm		
NAME: REL6LED-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042404
MFR.:	SUR.:0.00362	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WLM
 Test Date: 2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 13.291m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:0V I:0A P:0W PF:0 Lamp Flux:567.175x1 lm		
NAME: REL6LED-WH	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042404
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

Table--3

UNIT: cd

C (DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776
5	3828	3799	3757	3704	3641	3570	3470	3346	3213	3034	2793	2553	2345	2152	1988	1884	1783	1773	1766
10	3738	3887	4066	4187	4041	3885	3506	3063	2689	2346	2021	1699	1418	1198	1049	958	916	928	986
15	1082	1193	1254	1329	1315	1269	1104	1078	1113	1123	1086	1005	896	786	696	637	606	618	668
20	330	343	353	357	355	379	413	454	480	490	477	438	377	325	304	295	296	297	304
25	182	184	187	185	180	180	184	186	179	171	168	164	159	157	162	166	168	167	164
30	89.8	92.1	93.5	95.8	94.4	88.9	83.9	89.1	92.1	89.6	82.7	73.5	63.6	54.2	46.8	41.7	39.9	42.2	47.7
35	31.7	34.1	37.3	37.3	34.5	37.6	40.9	38.7	34.8	26.9	26.8	28.1	28.7	29.3	29.4	29.6	29.8	29.9	29.8
40	15.0	15.1	15.1	14.9	15.4	16.0	16.0	14.3	15.9	17.7	19.2	19.7	20.0	20.0	19.9	19.6	19.7	19.8	20.0
45	9.72	9.93	10.0	9.96	9.95	9.67	10.1	10.7	11.4	12.1	12.7	12.6	12.0	11.2	11.2	10.6	10.6	10.7	11.1
50	7.80	7.86	7.90	7.97	7.94	8.16	8.39	8.60	8.61	8.54	8.72	9.15	9.37	9.66	10.0	9.71	9.74	9.66	9.80
55	6.61	6.97	6.94	6.94	7.15	7.37	7.47	7.46	7.69	8.09	8.57	9.10	9.41	9.92	10.2	9.90	9.94	9.74	9.80
60	5.82	6.08	6.33	6.43	6.62	6.80	7.05	7.45	7.64	8.14	8.57	9.09	9.48	10.0	10.3	10.1	10.1	9.83	9.78
65	5.17	5.23	5.63	5.99	6.09	6.35	6.71	7.26	7.71	7.94	8.27	8.47	8.61	8.80	8.98	8.77	8.92	8.51	8.51
70	4.15	4.26	4.58	5.21	5.45	5.80	6.22	6.48	6.87	6.86	7.09	7.32	7.31	7.30	7.48	7.39	7.70	7.16	7.13
75	3.11	3.29	3.65	4.07	4.67	4.93	5.33	5.38	5.57	5.71	5.81	5.97	5.88	5.83	5.97	5.91	6.14	5.73	5.71
80	2.15	2.43	2.86	3.28	3.62	3.97	4.12	4.17	4.25	4.33	4.39	4.46	4.41	4.37	4.47	4.42	4.58	4.31	4.30
85	1.74	2.14	2.29	2.45	2.61	2.83	2.89	2.95	2.96	2.98	2.98	2.99	2.94	2.92	2.96	2.94	3.02	2.88	2.88
90	1.57	1.58	1.62	1.65	1.68	1.71	1.72	1.72	1.70	1.65	1.59	1.54	1.47	1.46	1.46	1.46	1.46	1.46	1.46

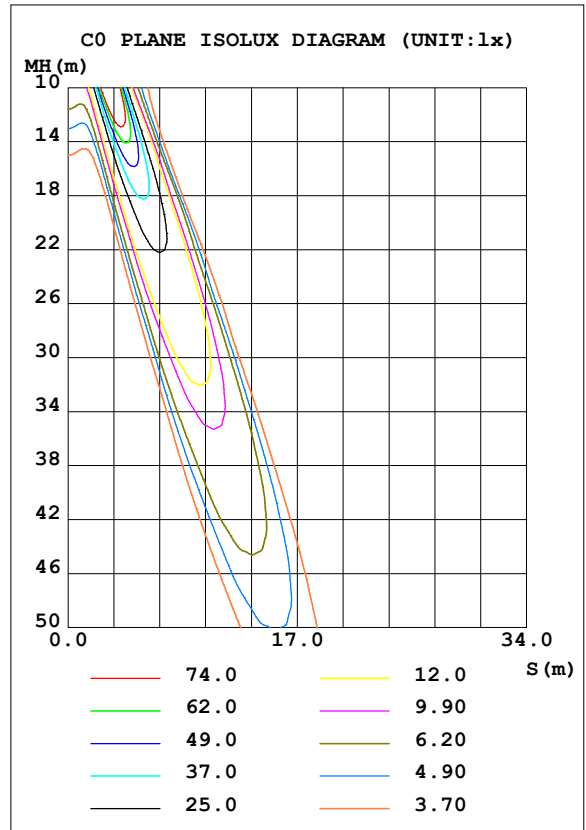
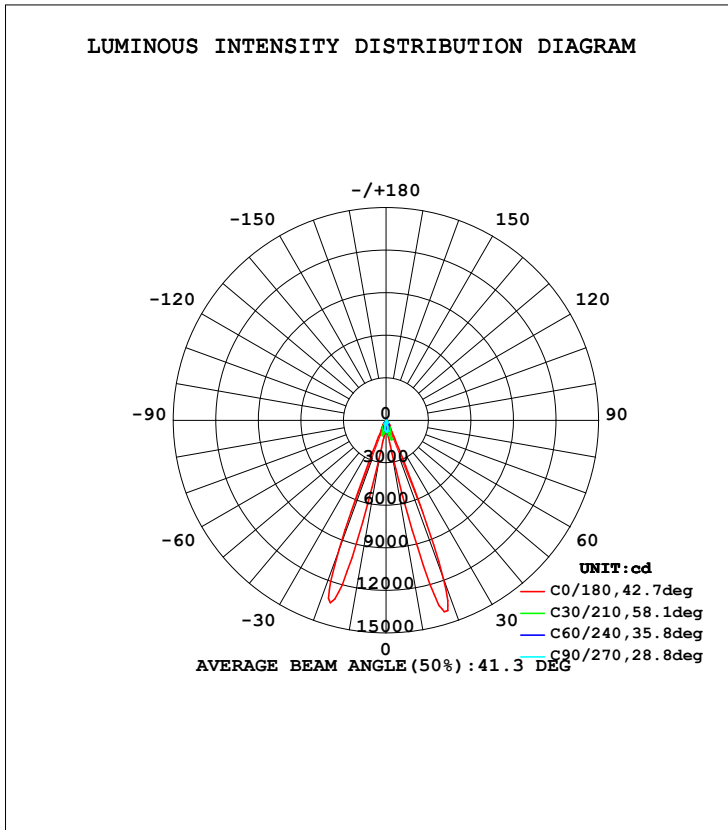
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-23

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm		
NAME: REL6LED-WH-HO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042402
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	REL6LED-WH-HO	I _{max} (cd)	14111	S/MH (C0/180)	0.96
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	0.43
RATED VOLTAGE (V)		TOTAL FLUX (lm)	1220.8	η UP, DN (C0-180)	0.0, 55.2
NOMINAL FLUX (lm)	1220.84	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 44.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WLM
 Test Date: 2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 13.824m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	78.71	78.27	79.76	79.87	85.07	74.08	72.25	71.65	0- 5	18.91	18.91	1.55,1.55
10	186.5	71.07	68.39	88.99	237.9	69.58	52.95	64.83	5- 10	59.13	78.04	6.39,6.39
15	1196	67.41	45.55	89.58	1203	59.05	33.22	59.34	10- 15	203.4	281.4	23.1,23.1
20	1187	63.32	22.71	92.58	964.3	47.04	13.49	54.13	15- 20	438.2	719.6	58.9,58.9
25	174.5	48.88	14.24	59.14	106.1	30.48	8.787	39.55	20- 25	235.5	955.2	78.2,78.2
30	61.44	32.24	5.774	31.94	51.71	17.47	4.079	23.81	25- 30	95.43	1051	86.1,86.1
35	40.85	17.66	4.455	17.08	33.21	9.420	3.320	13.67	30- 35	64.00	1115	91.3,91.3
40	17.28	6.004	3.137	6.186	12.64	3.971	2.561	4.997	35- 40	38.01	1153	94.4,94.4
45	6.932	4.154	1.929	4.205	5.456	2.893	1.860	3.550	40- 45	19.75	1172	96,96
50	3.288	2.667	1.609	2.664	2.837	2.011	1.622	2.355	45- 50	11.58	1184	97,97
55	1.952	1.640	1.401	1.632	1.720	1.383	1.442	1.504	50- 55	8.103	1192	97.6,97.6
60	1.349	1.348	1.193	1.318	1.276	1.159	1.262	1.225	55- 60	6.581	1199	98.2,98.2
65	1.041	1.102	1.026	1.057	1.019	0.9597	1.113	1.011	60- 65	5.589	1204	98.6,98.6
70	0.8084	0.8882	0.8585	0.8242	0.8060	0.8142	0.9645	0.8303	65- 70	4.756	1209	99,99
75	0.6509	0.6638	0.6579	0.6103	0.6624	0.7252	0.7556	0.7006	70- 75	3.963	1213	99.4,99.4
80	0.5641	0.5139	0.4574	0.4851	0.5564	0.5990	0.5466	0.5978	75- 80	3.285	1216	99.6,99.6
85	0.4840	0.3885	0.2569	0.3810	0.4588	0.4751	0.3377	0.4971	80- 85	2.658	1219	99.8,99.8
90	0.0065	0.2673	0.0564	0.2815	0.0054	0.3541	0.1288	0.3951	85- 90	1.983	1221	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

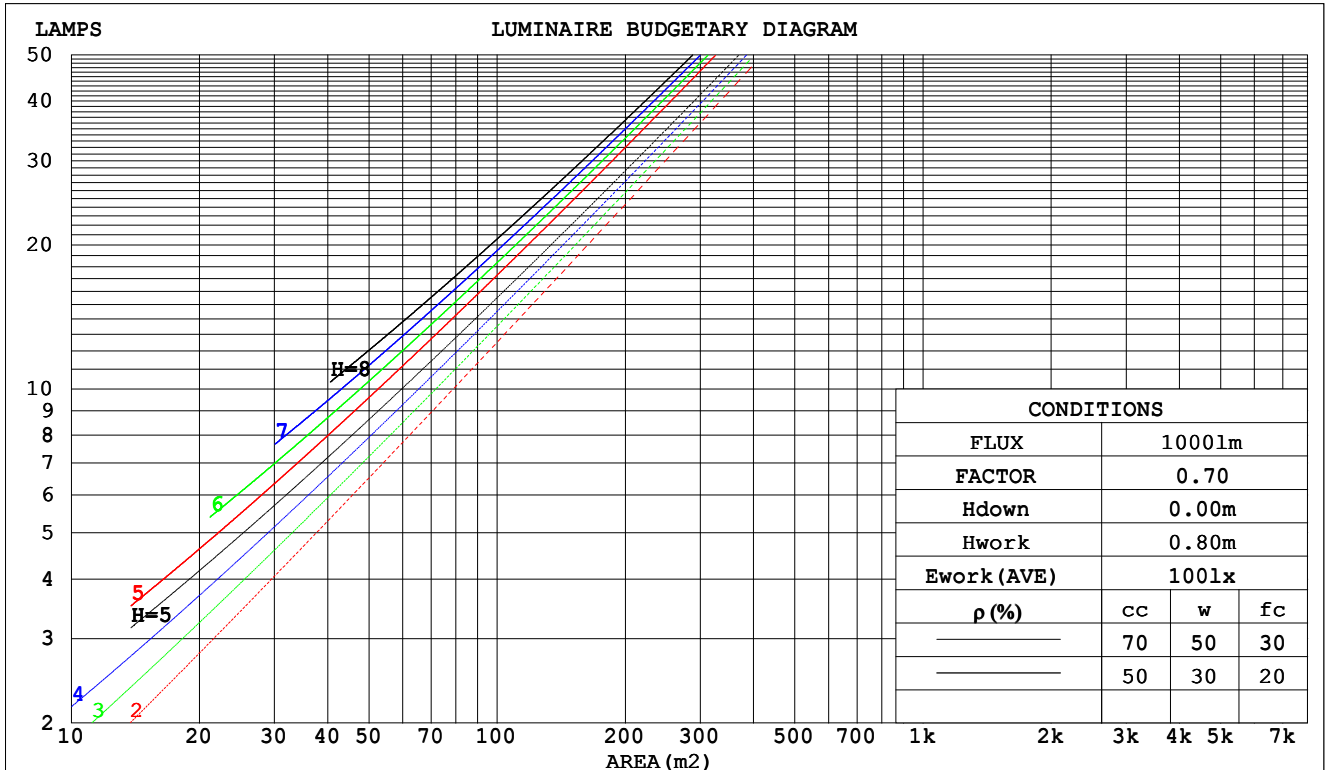
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm		
NAME: REL6LED-WH-HO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042402
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.99	.98	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.91	.90	.88
3.0	.98	.93	.89	.96	.92	.89	.94	.90	.87	.91	.88	.86	.89	.87	.85	.83
4.0	.92	.87	.83	.91	.86	.83	.89	.85	.82	.87	.83	.81	.85	.82	.80	.78
5.0	.87	.82	.78	.86	.81	.77	.84	.80	.77	.83	.79	.76	.81	.78	.75	.74
6.0	.82	.77	.73	.82	.77	.73	.80	.76	.72	.79	.75	.72	.78	.74	.71	.70
7.0	.78	.73	.69	.78	.72	.69	.76	.72	.68	.75	.71	.68	.74	.70	.68	.66
8.0	.74	.69	.65	.74	.69	.65	.73	.68	.65	.72	.68	.65	.71	.67	.64	.63
9.0	.71	.65	.62	.70	.65	.62	.69	.65	.61	.69	.64	.61	.68	.64	.61	.60
10.0	.67	.62	.59	.67	.62	.59	.66	.62	.58	.66	.61	.58	.65	.61	.58	.57



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm		
NAME: REL6LED-WH-HO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042402
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.173	.098	.031	.166	.095	.030	.154	.088	.028	.142	.082	.026	.132	.076	.025	
2.0	.162	.089	.027	.156	.086	.027	.146	.081	.025	.136	.076	.024	.127	.072	.023	
3.0	.152	.081	.024	.148	.079	.024	.139	.075	.023	.130	.072	.022	.123	.068	.021	
4.0	.144	.075	.022	.140	.073	.022	.132	.070	.021	.125	.067	.020	.119	.064	.020	
5.0	.137	.070	.020	.133	.068	.020	.126	.066	.019	.120	.063	.019	.114	.061	.018	
6.0	.130	.065	.019	.127	.064	.018	.121	.062	.018	.116	.060	.018	.111	.058	.017	
7.0	.124	.061	.017	.121	.060	.017	.116	.059	.017	.111	.057	.017	.107	.056	.016	
8.0	.119	.058	.016	.116	.057	.016	.112	.056	.016	.107	.054	.016	.103	.053	.015	
9.0	.114	.055	.015	.112	.054	.015	.108	.053	.015	.104	.052	.015	.100	.051	.015	
10.0	.109	.052	.015	.107	.052	.014	.104	.051	.014	.100	.050	.014	.097	.049	.014	

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.105	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.114	.077	.051	.098	.067	.045	.068	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.043	.092	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.101	.063	.037	.087	.055	.032	.060	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.096	.058	.032	.083	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.079	.047	.025	.055	.033	.018	.032	.019	.010	.010	.006	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm										
NAME: REL6LED-WH-HO					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:2018042402		
MFR.:					SUR.:0.00362			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	19.4	20.3	19.7	20.5	20.6	11.8	12.6	12.0	12.8	13.0
3H	19.5	20.3	19.7	20.5	20.7	13.1	13.9	13.4	14.1	14.3
4H	19.5	20.3	19.8	20.5	20.7	13.8	14.6	14.1	14.8	15.0
6H	19.6	20.3	19.9	20.6	20.8	14.4	15.1	14.7	15.4	15.6
8H	19.7	20.4	20.0	20.6	20.9	14.7	15.3	15.0	15.6	15.9
12H	19.8	20.5	20.1	20.7	21.0	14.9	15.5	15.2	15.8	16.1
4H 2H	19.3	20.0	19.5	20.3	20.5	12.3	13.1	12.6	13.3	13.5
3H	19.4	20.0	19.7	20.3	20.6	13.9	14.5	14.2	14.8	15.1
4H	19.5	20.1	19.8	20.4	20.7	14.7	15.3	15.1	15.6	15.9
6H	19.7	20.3	20.1	20.6	20.9	15.5	16.0	15.9	16.4	16.7
8H	19.9	20.4	20.3	20.7	21.1	15.8	16.3	16.2	16.7	17.0
12H	20.1	20.6	20.5	20.9	21.3	16.1	16.6	16.5	16.9	17.3
8H 4H	19.5	20.0	19.9	20.3	20.7	15.0	15.5	15.4	15.9	16.3
6H	19.8	20.2	20.2	20.6	21.0	16.0	16.5	16.5	16.8	17.3
8H	20.1	20.5	20.6	20.9	21.3	16.5	16.9	17.0	17.3	17.7
12H	20.5	20.8	21.0	21.3	21.7	16.9	17.2	17.4	17.7	18.1
12H 4H	19.4	19.9	19.9	20.3	20.7	15.1	15.6	15.5	15.9	16.3
6H	19.8	20.2	20.3	20.6	21.0	16.2	16.6	16.6	17.0	17.4
8H	20.2	20.5	20.6	20.9	21.4	16.7	17.1	17.2	17.5	18.0
Variations with the observer position at spacings:										
S = 1.0H	+ 3.3 / - 3.0					+ 0.6 / - 0.4				
1.5H	+ 5.5 / - 2.8					+ 0.5 / - 0.5				
2.0H	+ 2.6 / - 0.8					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 1221 lm Total Lamp Luminous Flux. (8log(F/F0) = 0.7)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm		
NAME: REL6LED-WH-HO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042402
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	82	78	88	82	78	87	81	78	75
0.80	95	90	86	95	89	86	94	89	85	82
1.00	100	94	90	99	94	90	97	93	90	86
1.25	103	98	95	102	98	94	100	96	94	89
1.50	106	101	98	105	101	97	103	99	96	92
2.00	109	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	103	105	103	101	95
3.00	112	108	106	110	107	104	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

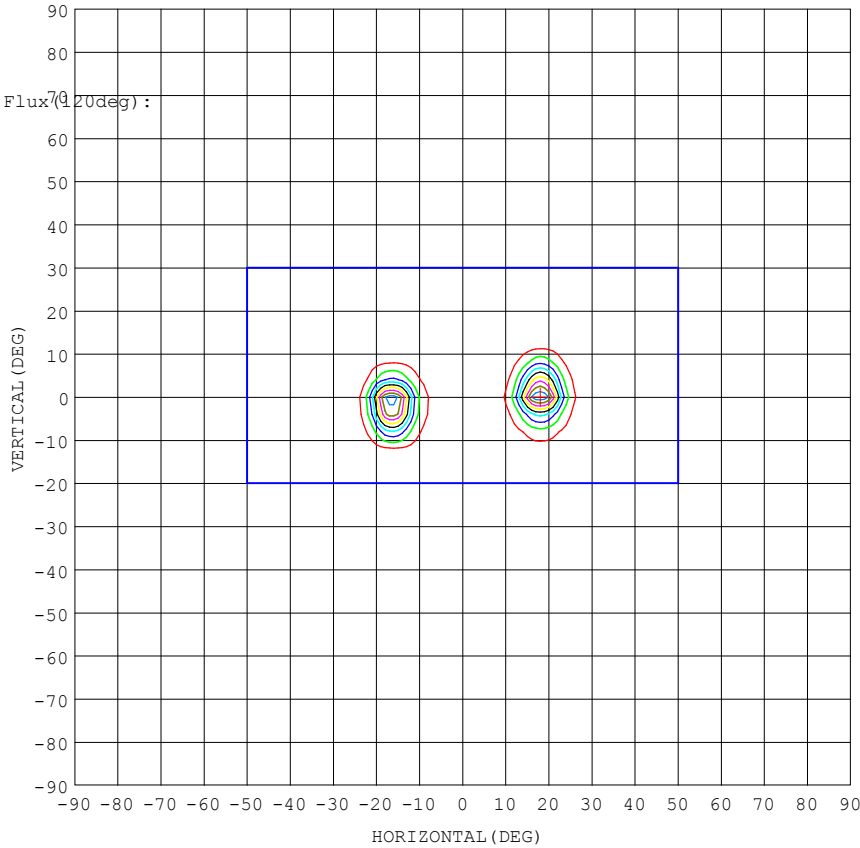
Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm		
NAME: REL6LED-WH-HO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042402
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

Conical surface Flux(90deg):

1172.3 lm
%lum = 96.0%
%lamp = 96.0%

Conical surface Flux(20deg):

1198.6 lm
%lum = 98.2%
%lamp = 98.2%



MAX = 14110
MIN = 14.568
AVG = 745.00
AVG/MAX = 0.05
MIN/MAX = 0.00

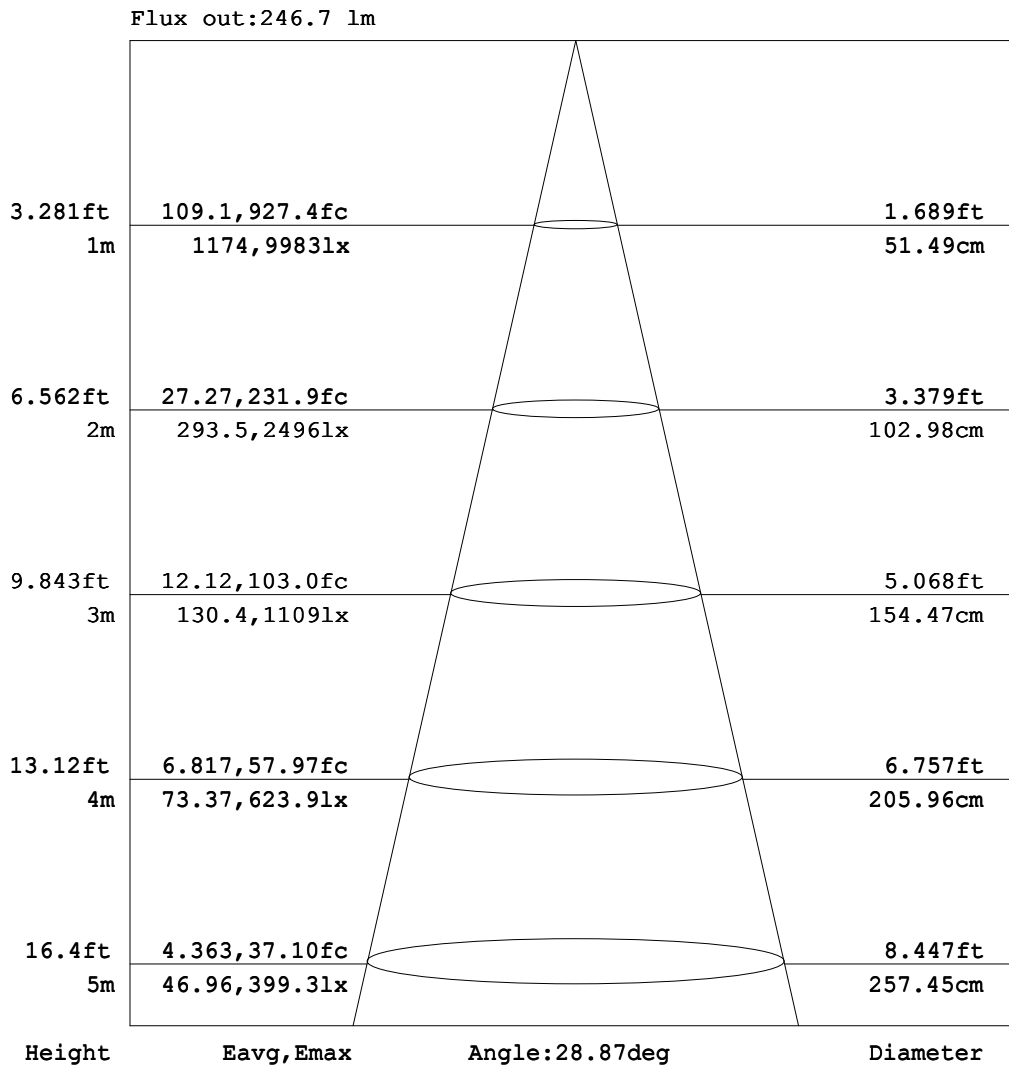
Imax:14110(H18.0,V0.0)
(At:C=0.0,Gamma=18.0)
UNIT: cd

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:WLM
Test Date:2018-04-24

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:13.824m [K=1.0000]
Remarks:

AAI Figure

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm		
NAME: REL6LED-WH-HO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042402
MFR.:	SUR.:0.00362	PROTECTION ANGLE:



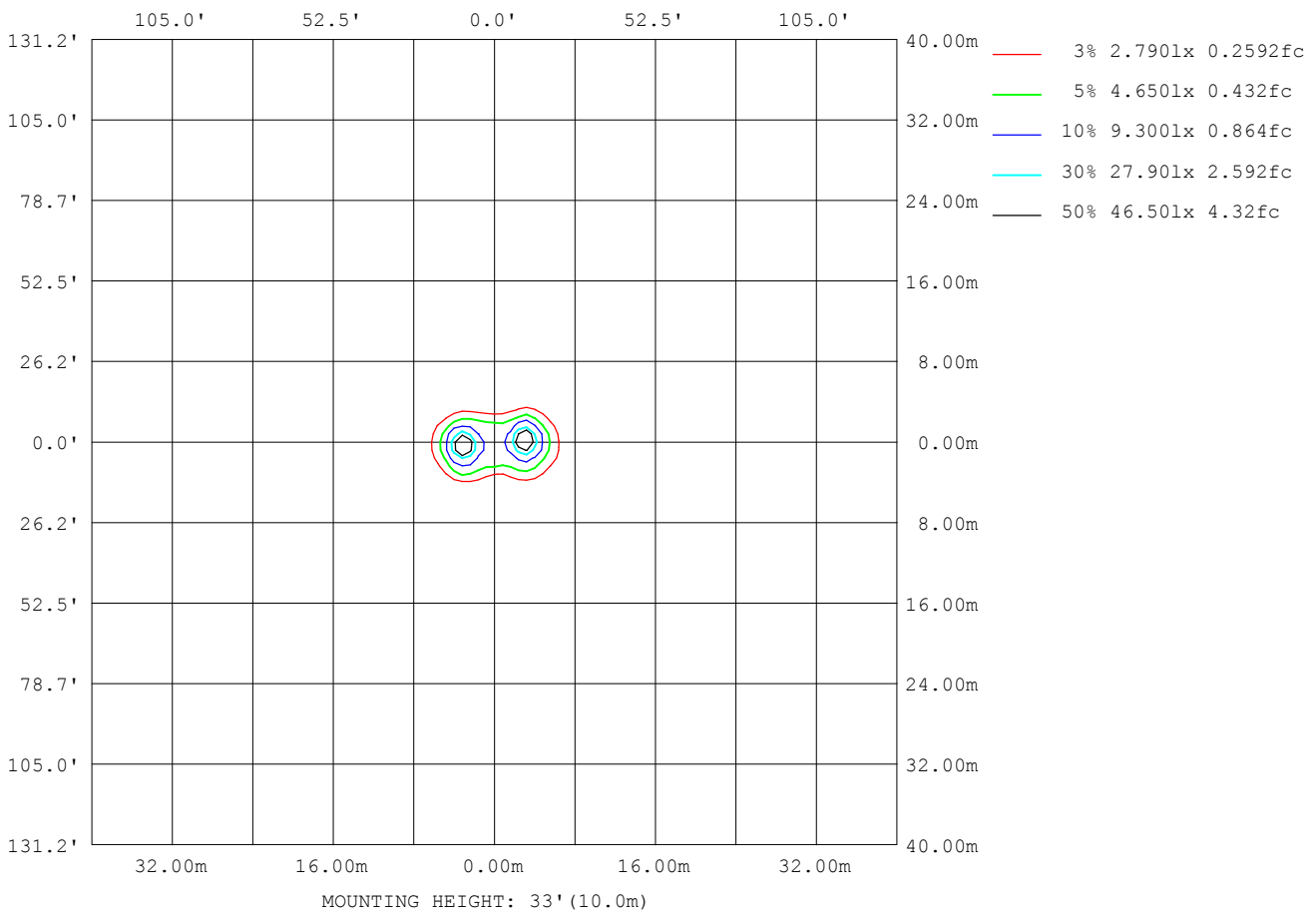
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

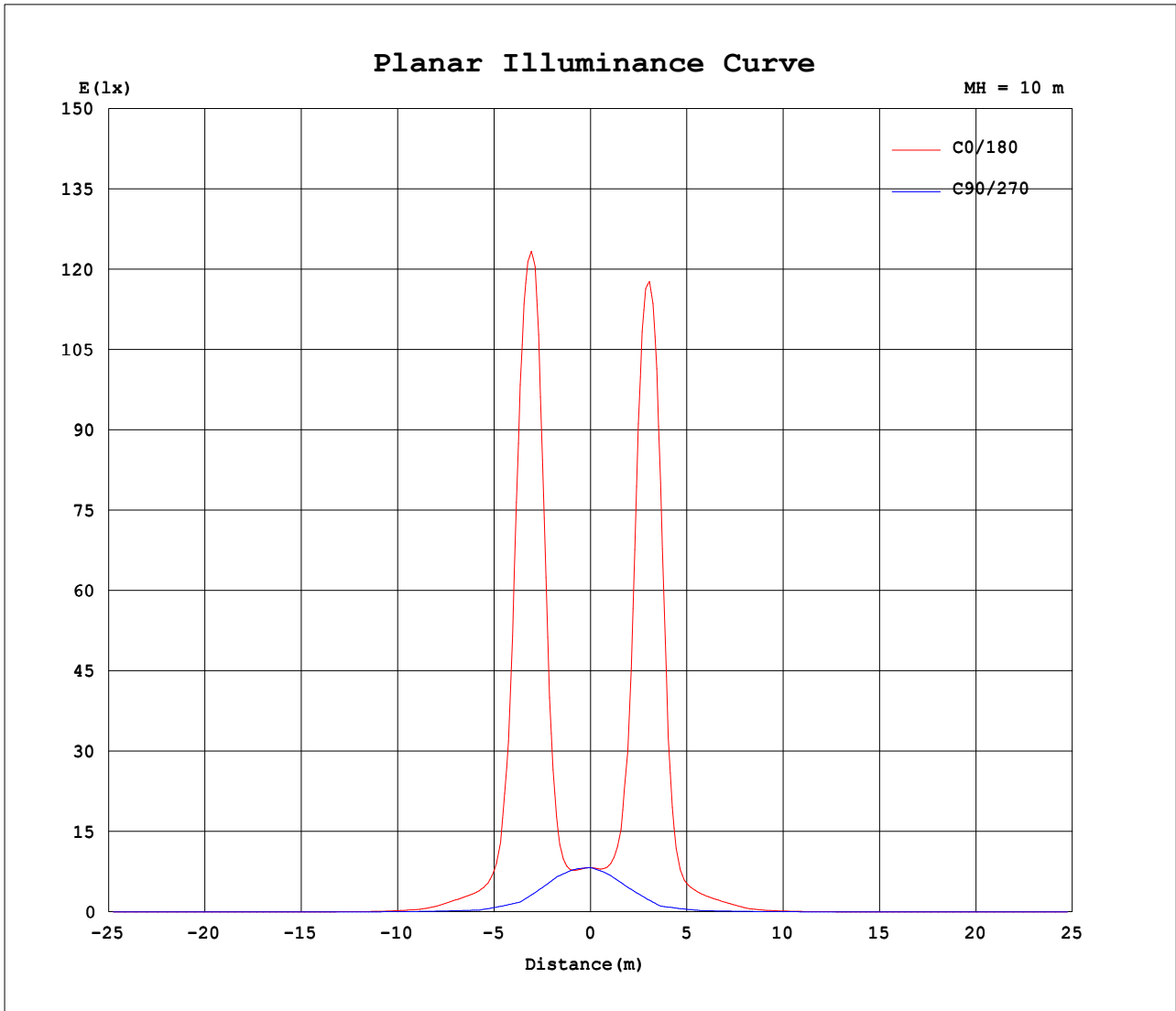
Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm		
NAME: REL6LED-WH-HO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042402
MFR.:	SUR.:0.00362	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WLM
 Test Date: 2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 13.824m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1220.84x1 lm		
NAME: REL6LED-WH-HO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042402
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

Table--1

UNIT: x10cd

C (DEG) \ γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
5	78.7	78.3	78.0	77.7	77.5	77.4	77.4	77.5	77.8	78.3	78.9	79.3	79.5	79.7	79.8	79.8	79.8	79.7	79.8
10	187	171	153	134	116	101	90.4	82.0	75.9	71.1	68.2	66.5	65.8	66.2	66.9	67.7	68.4	68.7	68.4
15	1196	948	691	446	295	192	139	101	76.6	67.4	61.4	56.1	51.7	48.4	46.2	45.3	45.1	45.3	45.6
20	1187	886	594	385	262	171	91.6	82.5	72.9	63.3	54.6	47.2	40.7	34.9	29.7	25.5	22.8	21.9	22.7
25	175	152	132	112	91.1	74.0	69.6	64.2	57.2	48.9	40.5	34.5	29.5	24.7	20.3	16.6	14.4	13.7	14.2
30	61.4	60.2	59.6	57.2	53.0	49.1	45.7	42.0	37.0	32.2	27.1	22.0	17.3	13.2	9.82	7.39	6.13	5.81	5.77
35	40.9	40.6	39.4	37.9	33.6	28.9	24.8	23.7	21.6	17.7	12.7	7.61	6.48	5.85	5.23	4.66	4.34	4.39	4.46
40	17.3	17.0	16.2	15.5	14.8	12.5	11.5	10.5	8.59	6.00	5.83	5.48	4.96	4.40	3.90	3.43	3.14	3.11	3.14
45	6.93	6.93	6.70	6.42	5.97	5.83	5.44	4.22	4.20	4.15	3.98	3.72	3.25	2.78	2.39	2.10	1.97	1.94	1.93
50	3.29	3.24	3.19	3.00	2.90	2.80	2.50	2.69	2.79	2.67	2.38	2.02	1.78	1.72	1.68	1.65	1.62	1.64	1.61
55	1.95	1.97	1.93	1.89	1.88	1.86	1.81	1.82	1.79	1.64	1.56	1.54	1.55	1.49	1.47	1.44	1.42	1.45	1.40
60	1.35	1.39	1.41	1.41	1.41	1.40	1.38	1.34	1.35	1.35	1.32	1.31	1.29	1.26	1.25	1.23	1.21	1.26	1.19
65	1.04	1.05	1.07	1.09	1.11	1.10	1.08	1.08	1.11	1.10	1.08	1.05	1.06	1.05	1.08	1.07	1.06	1.07	1.03
70	0.81	0.85	0.85	0.86	0.87	0.89	0.88	0.89	0.87	0.89	0.88	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.86
75	0.65	0.68	0.70	0.69	0.72	0.71	0.70	0.68	0.65	0.66	0.69	0.68	0.67	0.67	0.71	0.72	0.70	0.67	0.66
80	0.56	0.56	0.57	0.62	0.63	0.62	0.61	0.53	0.51	0.51	0.53	0.52	0.50	0.49	0.50	0.50	0.49	0.46	0.46
85	0.48	0.47	0.48	0.50	0.53	0.52	0.49	0.43	0.40	0.39	0.38	0.36	0.34	0.32	0.30	0.29	0.27	0.26	0.26
90	0.01	0.33	0.40	0.41	0.42	0.42	0.37	0.33	0.30	0.27	0.24	0.20	0.17	0.14	0.10	0.07	0.05	0.05	0.06

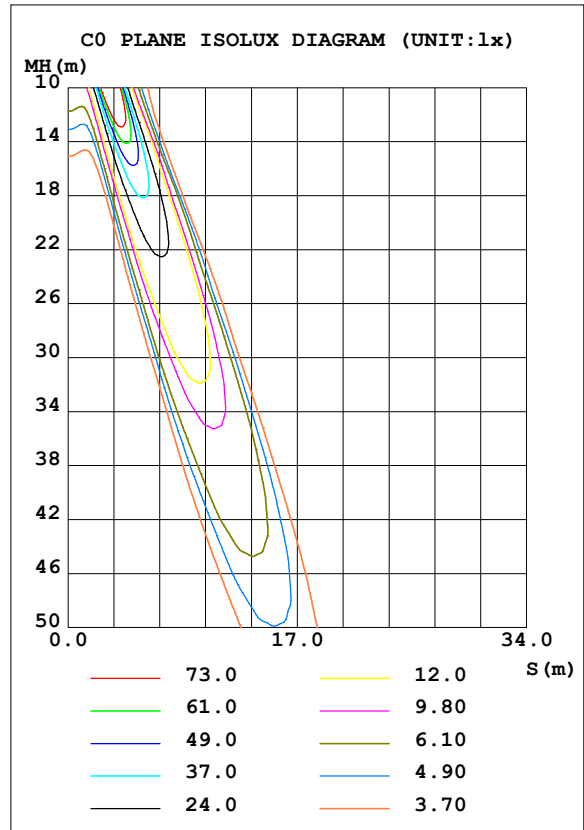
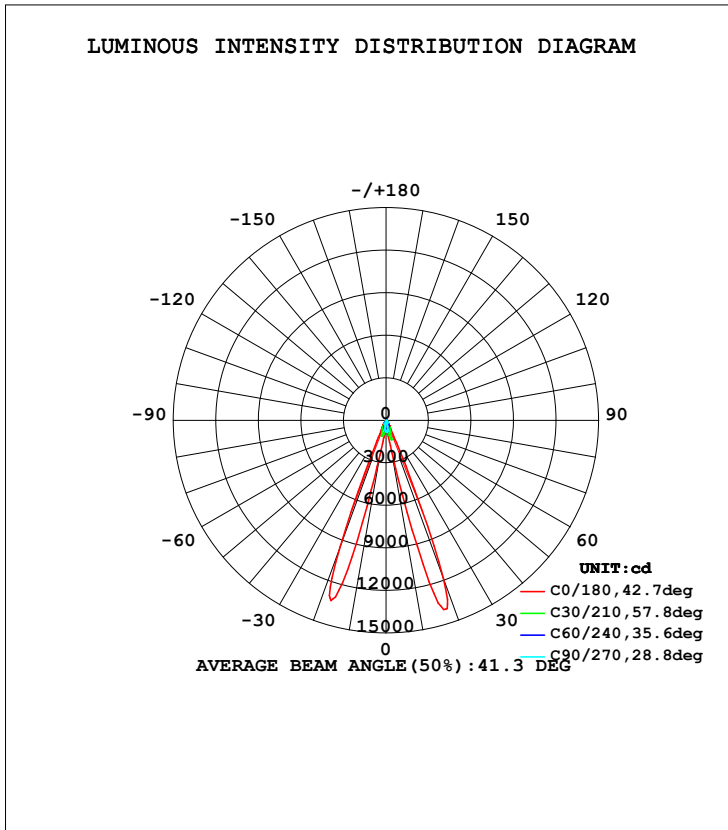
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1216.4x1 lm		
NAME: REL6LED-WH-HO-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042401
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	REL6LED-WH-HO-SD	I _{max} (cd)	13969	S/MH (C0/180)	0.95
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	0.44
RATED VOLTAGE (V)		TOTAL FLUX (lm)	1216.4	η UP, DN (C0-180)	0.0, 55.0
NOMINAL FLUX (lm)	1216.4	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 45.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WLM
 Test Date: 2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 13.824m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	79.78	79.54	80.49	81.14	87.40	75.31	73.50	72.82	0- 5	19.19	19.19	1.58,1.58
10	183.4	71.11	68.91	91.34	249.5	71.46	54.28	65.13	5- 10	60.24	79.43	6.53,6.53
15	1183	67.34	45.84	91.36	1187	60.27	33.97	59.31	10- 15	204.4	283.8	23.3,23.3
20	1185	63.21	22.76	93.64	947.3	48.30	13.66	54.19	15- 20	434.8	718.6	59.1,59.1
25	176.6	48.81	14.27	58.26	106.1	31.25	8.856	39.61	20- 25	235.0	953.6	78.4,78.4
30	61.33	32.17	5.768	30.98	50.09	17.71	4.054	23.83	25- 30	94.79	1048	86.2,86.2
35	40.71	17.68	4.447	16.51	31.95	9.425	3.290	13.65	30- 35	63.16	1112	91.4,91.4
40	17.23	6.047	3.126	6.030	11.97	3.913	2.526	4.964	35- 40	37.45	1149	94.5,94.5
45	6.868	4.179	1.916	4.111	5.253	2.834	1.820	3.521	40- 45	19.46	1168	96.1,96.1
50	3.265	2.674	1.599	2.618	2.770	1.966	1.587	2.333	45- 50	11.42	1180	97,97
55	1.929	1.638	1.394	1.614	1.670	1.346	1.413	1.485	50- 55	7.994	1188	97.7,97.7
60	1.329	1.345	1.189	1.305	1.244	1.129	1.238	1.209	55- 60	6.491	1194	98.2,98.2
65	1.023	1.102	1.023	1.047	0.9965	0.9307	1.095	0.9966	60- 65	5.519	1200	98.6,98.6
70	0.7955	0.8907	0.8574	0.8184	0.7866	0.7945	0.9515	0.8177	65- 70	4.701	1205	99,99
75	0.6400	0.6670	0.6580	0.6058	0.6461	0.7114	0.7459	0.6896	70- 75	3.920	1209	99.4,99.4
80	0.5544	0.5162	0.4585	0.4816	0.5432	0.5878	0.5402	0.5888	75- 80	3.252	1212	99.6,99.6
85	0.4774	0.3900	0.2590	0.3782	0.4491	0.4687	0.3345	0.4894	80- 85	2.635	1214	99.8,99.8
90	0.0065	0.2685	0.0596	0.2793	0.0054	0.3519	0.1288	0.3886	85- 90	1.971	1216	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

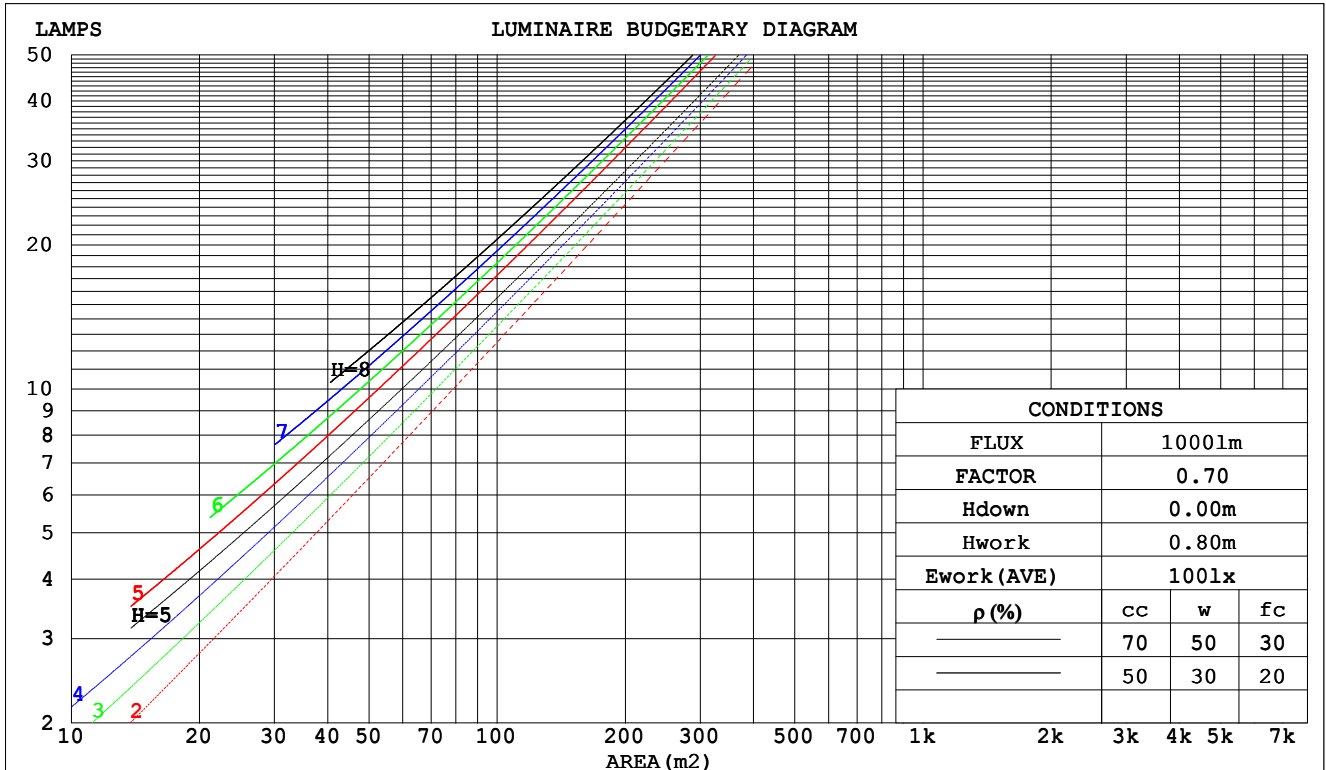
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1216.4x1 lm		
NAME: REL6LED-WH-HO-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042401
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.92	.90	.88
3.0	.98	.93	.89	.96	.92	.89	.94	.90	.87	.91	.88	.86	.89	.87	.85	.83
4.0	.92	.87	.83	.91	.86	.83	.89	.85	.82	.87	.84	.81	.85	.82	.80	.78
5.0	.87	.82	.78	.86	.81	.77	.84	.80	.77	.83	.79	.76	.81	.78	.75	.74
6.0	.83	.77	.73	.82	.77	.73	.80	.76	.72	.79	.75	.72	.78	.74	.71	.70
7.0	.78	.73	.69	.78	.73	.69	.76	.72	.68	.75	.71	.68	.74	.71	.68	.66
8.0	.74	.69	.65	.74	.69	.65	.73	.68	.65	.72	.68	.65	.71	.67	.64	.63
9.0	.71	.66	.62	.70	.65	.62	.70	.65	.62	.69	.64	.61	.68	.64	.61	.60
10.0	.68	.62	.59	.67	.62	.59	.66	.62	.59	.66	.61	.58	.65	.61	.58	.57



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1216.4x1 lm		
NAME: REL6LED-WH-HO-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042401
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.173	.098	.031	.166	.095	.030	.154	.088	.028	.142	.082	.026	.131	.076	.025	
2.0	.162	.089	.027	.156	.086	.027	.146	.081	.025	.136	.076	.024	.127	.072	.023	
3.0	.152	.081	.024	.147	.079	.024	.139	.075	.023	.130	.071	.022	.123	.068	.021	
4.0	.144	.075	.022	.140	.073	.022	.132	.070	.021	.125	.067	.020	.118	.064	.020	
5.0	.136	.069	.020	.133	.068	.020	.126	.066	.019	.120	.063	.019	.114	.061	.018	
6.0	.130	.065	.019	.127	.064	.018	.121	.062	.018	.115	.060	.018	.110	.058	.017	
7.0	.124	.061	.017	.121	.060	.017	.116	.059	.017	.111	.057	.017	.107	.055	.016	
8.0	.118	.058	.016	.116	.057	.016	.111	.056	.016	.107	.054	.016	.103	.053	.015	
9.0	.114	.055	.015	.111	.054	.015	.107	.053	.015	.104	.052	.015	.100	.051	.015	
10.0	.109	.052	.015	.107	.052	.014	.104	.051	.014	.100	.050	.014	.097	.049	.014	

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.114	.077	.051	.098	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.043	.092	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.101	.063	.037	.087	.055	.033	.060	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.096	.058	.032	.083	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.079	.047	.025	.055	.033	.018	.032	.019	.010	.010	.006	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1216.4x1 lm										
NAME: REL6LED-WH-HO-SD					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:2018042401		
MFR.:					SUR.:0.00362			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	19.4	20.3	19.7	20.5	20.6	11.8	12.6	12.0	12.8	13.0
3H	19.5	20.3	19.7	20.5	20.7	13.1	13.9	13.4	14.1	14.3
4H	19.5	20.3	19.8	20.5	20.7	13.8	14.6	14.1	14.8	15.0
6H	19.6	20.3	19.9	20.6	20.8	14.4	15.1	14.7	15.4	15.6
8H	19.7	20.4	20.0	20.6	20.9	14.7	15.4	15.0	15.6	15.9
12H	19.8	20.5	20.1	20.7	21.0	14.9	15.5	15.2	15.8	16.1
4H 2H	19.3	20.0	19.6	20.3	20.5	12.3	13.1	12.6	13.3	13.5
3H	19.4	20.0	19.7	20.3	20.6	13.9	14.5	14.2	14.8	15.1
4H	19.5	20.1	19.8	20.4	20.7	14.7	15.3	15.1	15.6	15.9
6H	19.7	20.2	20.1	20.6	20.9	15.5	16.1	15.9	16.4	16.7
8H	19.9	20.4	20.3	20.7	21.1	15.9	16.3	16.2	16.7	17.1
12H	20.1	20.6	20.5	20.9	21.3	16.1	16.6	16.5	16.9	17.3
8H 4H	19.5	20.0	19.9	20.3	20.7	15.1	15.6	15.4	15.9	16.3
6H	19.8	20.2	20.2	20.6	21.0	16.1	16.5	16.5	16.9	17.3
8H	20.1	20.5	20.6	20.9	21.3	16.5	16.9	17.0	17.3	17.7
12H	20.5	20.8	21.0	21.3	21.7	16.9	17.3	17.4	17.7	18.2
12H 4H	19.5	19.9	19.9	20.3	20.7	15.1	15.6	15.5	15.9	16.3
6H	19.8	20.2	20.3	20.6	21.0	16.2	16.6	16.7	17.0	17.4
8H	20.2	20.5	20.6	20.9	21.4	16.8	17.1	17.2	17.5	18.0
Variations with the observer position at spacings:										
S = 1.0H	+ 3.2 / - 3.0					+ 0.6 / - 0.4				
1.5H	+ 5.4 / - 2.8					+ 0.6 / - 0.5				
2.0H	+ 2.6 / - 0.8					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 1216 lm Total Lamp Luminous Flux. (8log(F/F0) = 0.7)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1216.4x1 lm		
NAME: REL6LED-WH-HO-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042401
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	82	78	88	82	78	87	81	78	75
0.80	95	90	86	95	89	86	94	89	85	82
1.00	100	94	90	99	94	90	97	93	90	86
1.25	103	98	95	102	98	94	100	97	94	90
1.50	106	101	98	105	101	98	103	99	96	92
2.00	109	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	103	106	103	101	95
3.00	112	108	106	110	107	104	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

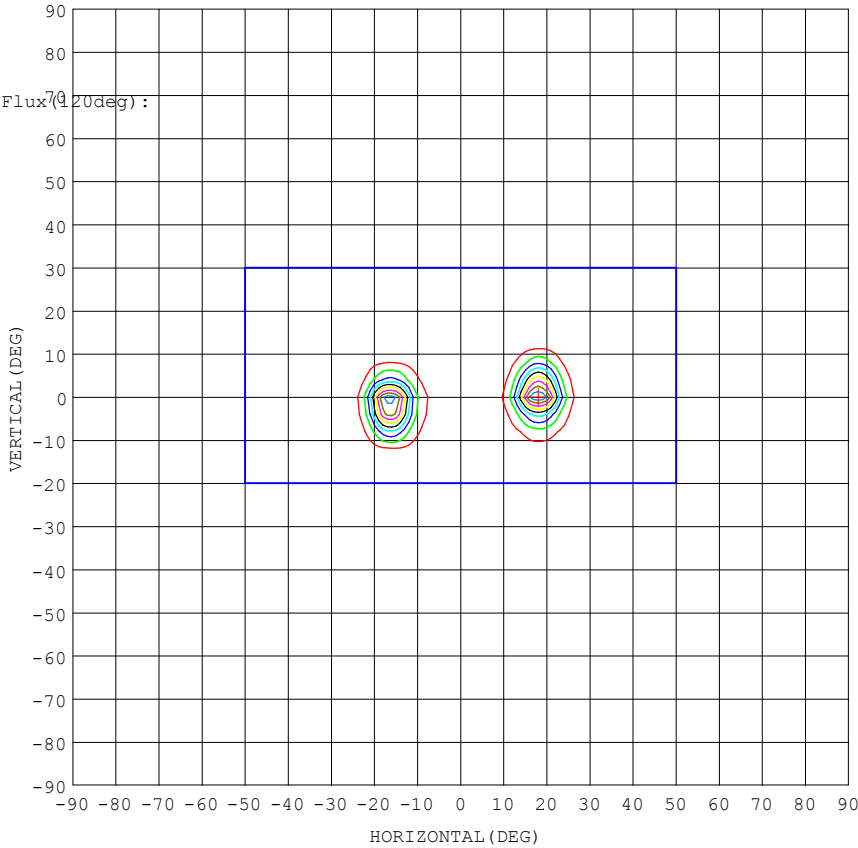
Test:U:0V I:0A P:0W PF:0 Lamp Flux:1216.4x1 lm		
NAME: REL6LED-WH-HO-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042401
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

Conical surface Flux(90deg):

1168.5 lm
 %lum = 96.1%
 %lamp = 96.1%

Conical surface Flux(20deg):

1194.4 lm
 %lum = 98.2%
 %lamp = 98.2%



MAX = 13962
 MIN = 14.142
 AVG = 742.47
 AVG/MAX = 0.05
 MIN/MAX = 0.00

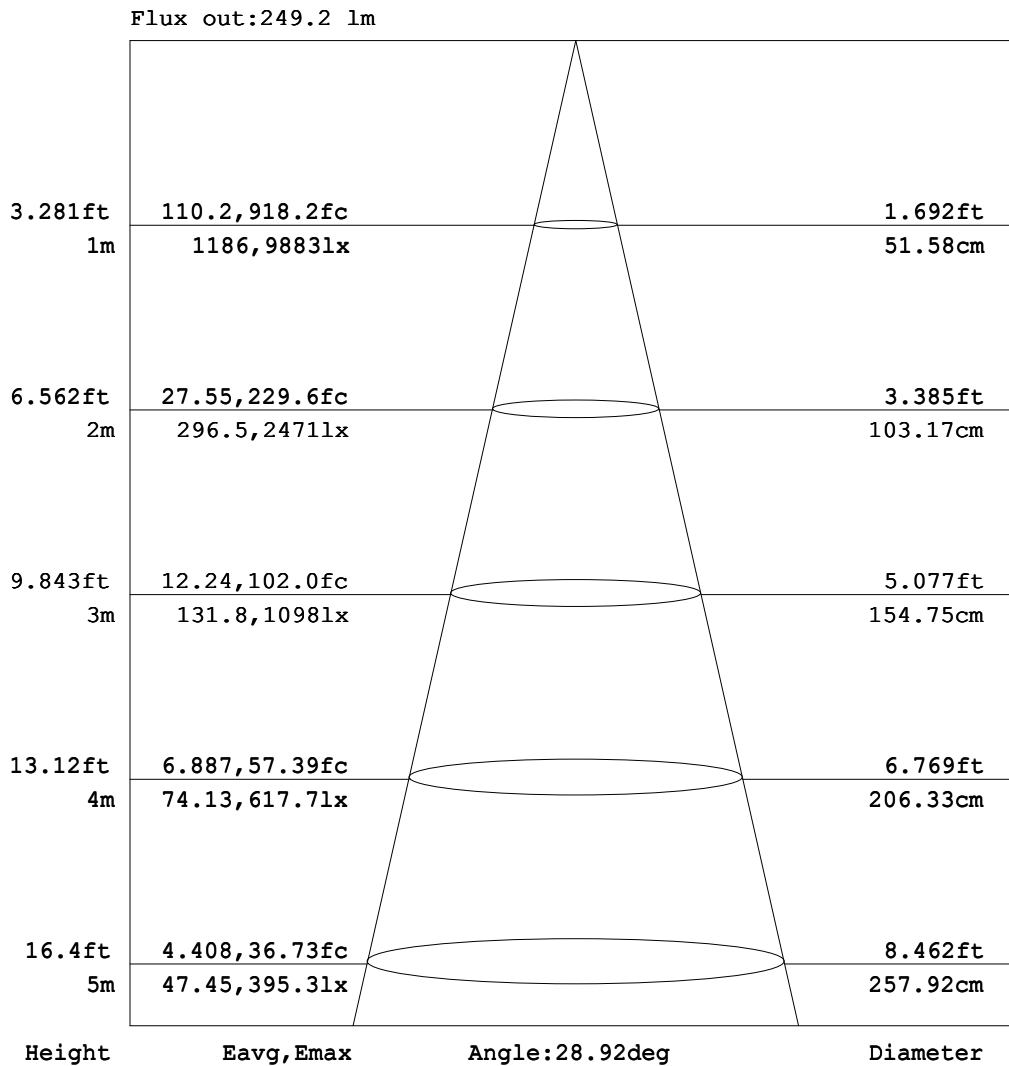
Imax:13962 (H18.0,V0.0)
 (At:C=0.0,Gamma=18.0)
 UNIT: cd

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

AAI Figure

Test:U:0V I:0A P:0W PF:0 Lamp Flux:1216.4x1 lm		
NAME: REL6LED-WH-HO-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042401
MFR.:	SUR.:0.00362	PROTECTION ANGLE:



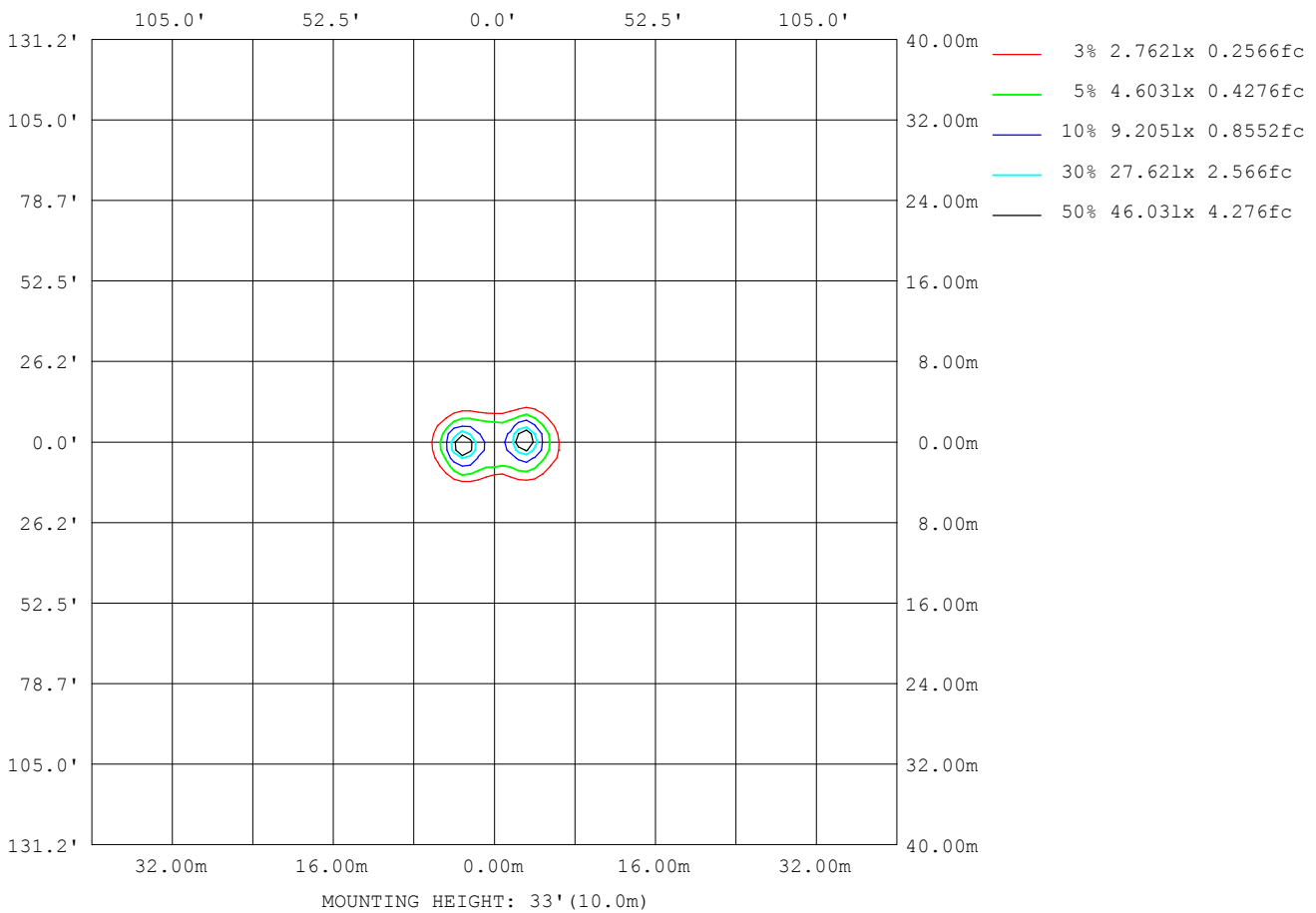
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

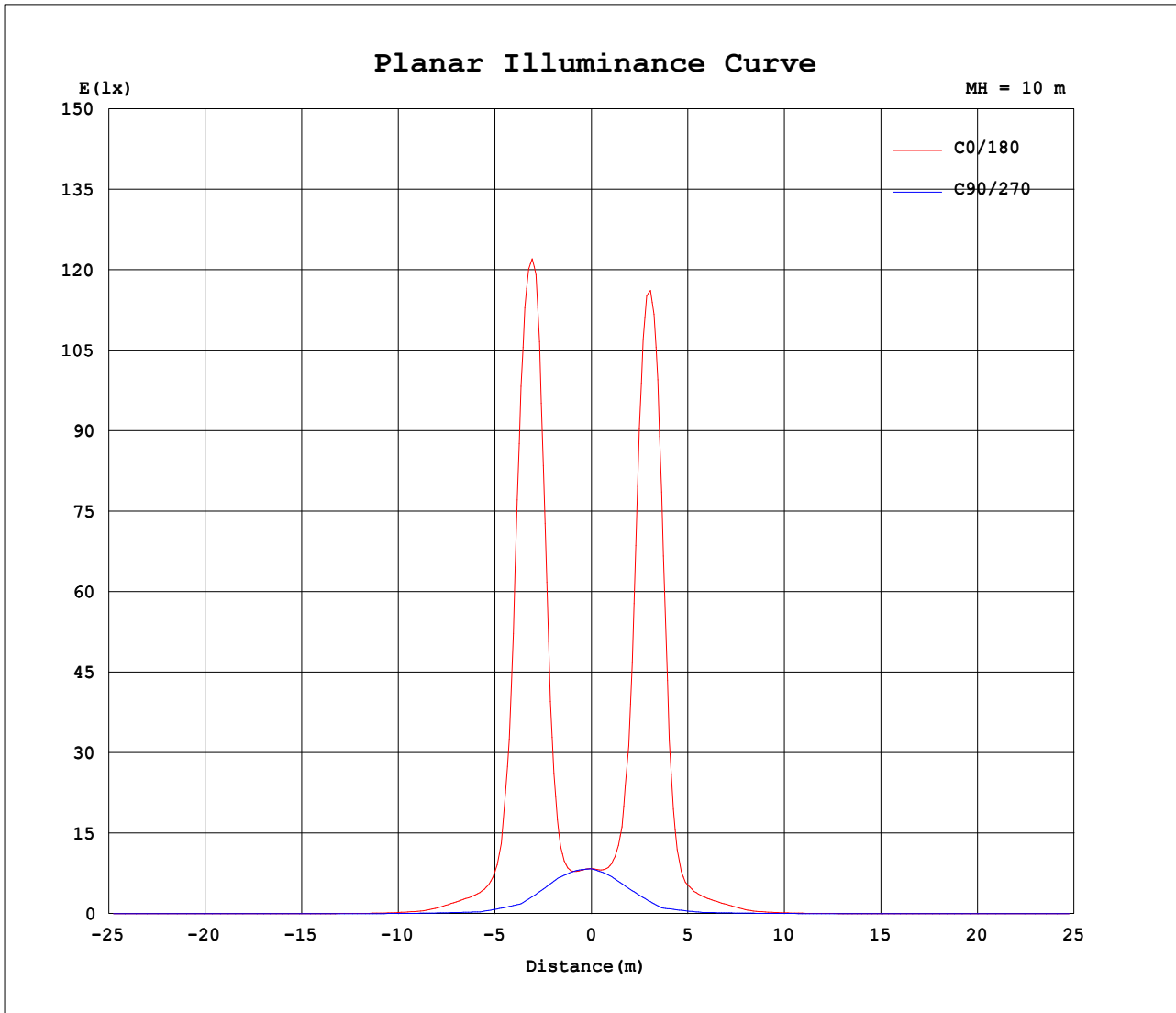
Test:U:0V I:0A P:0W PF:0 Lamp Flux:1216.4x1 lm		
NAME: REL6LED-WH-HO-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042401
MFR.:	SUR.:0.00362	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.824m [K=1.0000]
 Remarks:

Planar Illuminance Curve



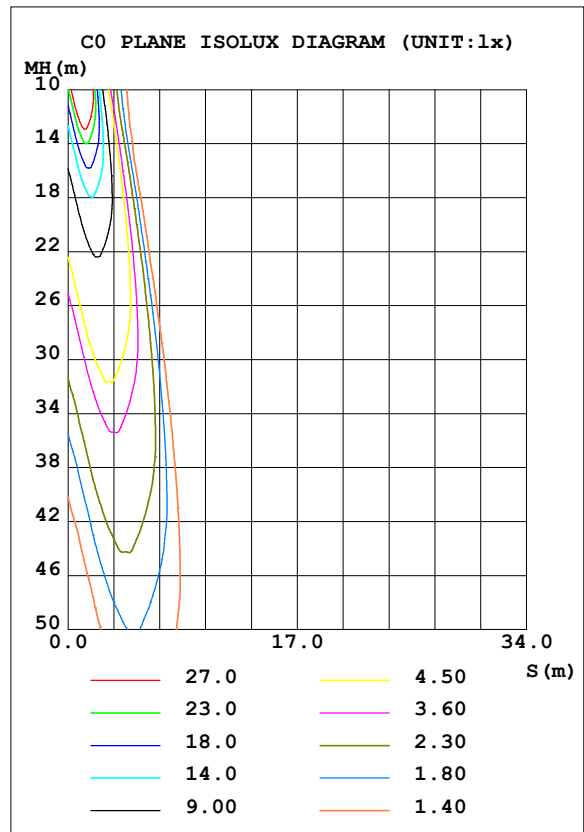
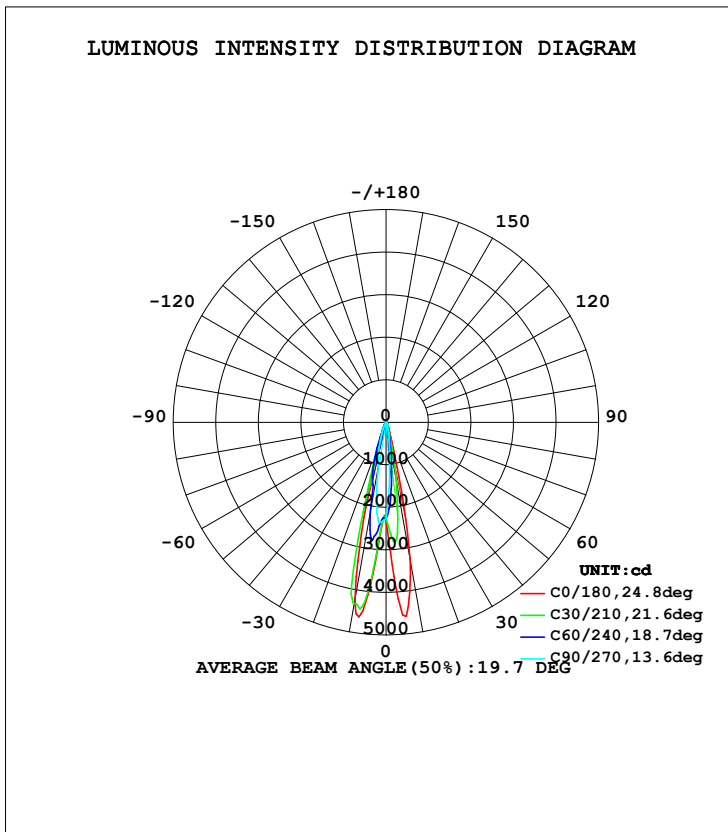
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WLM
 Test Date: 2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 13.824m [K=1.0000]
 Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0 Lamp Flux:599.021x1 lm		
NAME: REL6LED-WH-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042403
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	REL6LED-WH-SD	I _{max} (cd)	4897	S/MH (C0/180)	0.45
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	0.33
RATED VOLTAGE (V)		TOTAL FLUX (lm)	599.02	η UP, DN (C0-180)	0.0, 33.4
NOMINAL FLUX (lm)	599.021	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 66.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WLM
 Test Date: 2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 13.291m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
5	4544	2003	1049	1558	3580	3141	2257	3974	0- 5	60.01	60.01	10,10
10	3259	949.3	453.6	937.1	4204	3268	1025	3497	5- 10	182.6	242.6	40.5,40.5
15	810.1	324.8	273.9	382.1	1373	1389	663.7	967.0	10- 15	162.1	404.7	67.6,67.6
20	264.8	165.3	94.26	213.5	381.5	567.5	302.0	388.0	15- 20	81.97	486.7	81.2,81.2
25	160.8	71.24	56.32	91.98	210.1	218.0	172.2	167.9	20- 25	42.37	529.0	88.3,88.3
30	51.16	29.39	18.38	37.27	111.7	106.0	42.46	79.44	25- 30	25.06	554.1	92.5,92.5
35	22.77	16.33	14.71	19.92	40.21	44.41	31.72	35.59	30- 35	11.90	566.0	94.5,94.5
40	12.14	9.606	11.04	10.56	15.96	15.75	20.98	13.35	35- 40	6.393	572.4	95.6,95.6
45	8.802	7.958	7.675	8.456	9.951	11.41	11.32	10.01	40- 45	4.332	576.7	96.3,96.3
50	7.095	6.888	6.798	7.103	7.713	9.010	10.36	8.055	45- 50	3.446	580.2	96.8,96.8
55	6.286	6.167	6.231	6.261	6.614	7.695	10.48	6.935	50- 55	3.242	583.4	97.4,97.4
60	5.816	5.295	5.664	5.652	5.934	7.654	10.61	6.686	55- 60	3.208	586.6	97.9,97.9
65	5.144	4.256	4.818	5.038	5.273	7.727	9.171	6.323	60- 65	3.114	589.7	98.4,98.4
70	4.036	3.445	3.973	4.190	4.442	7.259	7.735	5.922	65- 70	2.822	592.5	98.9,98.9
75	3.063	3.129	3.017	3.072	3.461	6.146	6.186	5.595	70- 75	2.400	594.9	99.3,99.3
80	2.072	5.397	2.061	2.135	2.350	4.841	4.638	4.178	75- 80	1.902	596.8	99.6,99.6
85	1.282	1.526	1.106	1.282	1.360	3.532	3.090	2.932	80- 85	1.351	598.2	99.9,99.9
90	0.0500	0.3502	0.1501	0.4503	0.0583	2.232	1.541	1.741	85- 90	0.8319	599.0	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

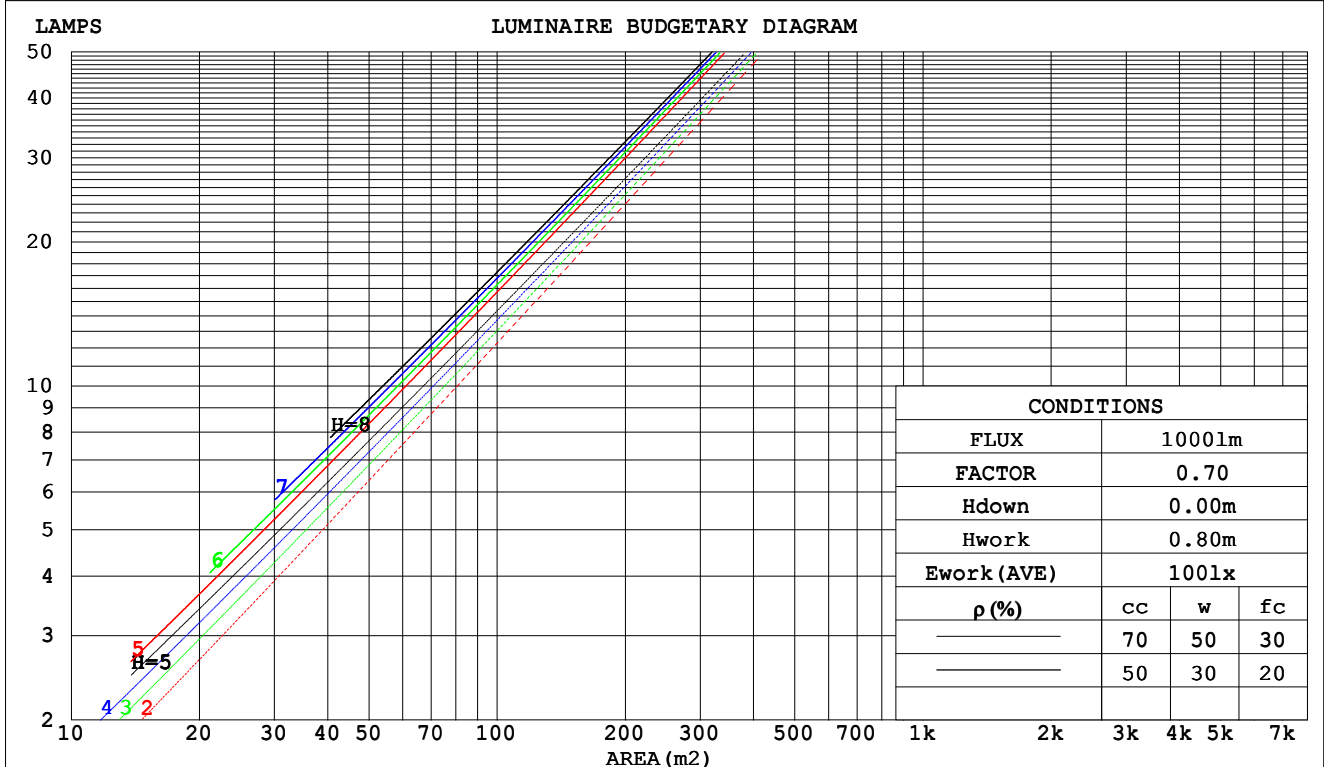
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:599.021x1 lm		
NAME: REL6LED-WH-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042403
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.12	1.10	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.01	1.05	1.03	1.00	1.02	1.00	.98	.99	.98	.96	.97	.95	.94	.93
3.0	1.02	.99	.96	1.01	.98	.95	.99	.96	.94	.96	.94	.92	.94	.92	.91	.89
4.0	.99	.94	.91	.97	.94	.91	.95	.92	.90	.94	.91	.89	.92	.90	.88	.87
5.0	.95	.91	.88	.94	.90	.87	.93	.89	.87	.91	.88	.86	.90	.87	.85	.84
6.0	.92	.88	.85	.91	.87	.84	.90	.87	.84	.89	.86	.83	.88	.85	.83	.82
7.0	.89	.85	.82	.89	.85	.82	.88	.84	.82	.86	.83	.81	.86	.83	.81	.80
8.0	.87	.83	.80	.86	.82	.80	.85	.82	.79	.84	.81	.79	.84	.81	.79	.78
9.0	.84	.80	.78	.84	.80	.78	.83	.80	.77	.82	.79	.77	.82	.79	.77	.76
10.0	.82	.78	.76	.82	.78	.76	.81	.78	.75	.81	.77	.75	.80	.77	.75	.74



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:0V I:0A P:0W PF:0 Lamp Flux:599.021x1 lm		
NAME: REL6LED-WH-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042403
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.144	.082	.026	.138	.079	.025	.125	.072	.023	.114	.066	.021	.103	.060	.019	
2.0	.132	.072	.022	.127	.070	.022	.116	.065	.020	.107	.060	.019	.098	.056	.018	
3.0	.122	.065	.019	.117	.063	.019	.109	.059	.018	.101	.055	.017	.094	.052	.016	
4.0	.113	.059	.017	.109	.057	.017	.102	.054	.016	.095	.051	.015	.089	.048	.015	
5.0	.106	.054	.016	.103	.053	.015	.096	.050	.015	.091	.048	.014	.085	.046	.014	
6.0	.099	.050	.014	.097	.049	.014	.091	.047	.014	.086	.045	.013	.082	.043	.013	
7.0	.094	.046	.013	.091	.046	.013	.087	.044	.013	.083	.042	.012	.078	.041	.012	
8.0	.089	.043	.012	.087	.043	.012	.083	.041	.012	.079	.040	.012	.075	.039	.011	
9.0	.085	.041	.011	.083	.040	.011	.079	.039	.011	.076	.038	.011	.073	.037	.011	
10.0	.081	.039	.011	.079	.038	.011	.076	.037	.010	.073	.036	.010	.070	.035	.010	

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.169	.158	.147	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.123	.098	.079	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.066	.097	.074	.057	.067	.052	.040	.039	.030	.024	.012	.010	.008	
6.0	.104	.076	.056	.089	.065	.048	.061	.046	.034	.036	.027	.020	.011	.009	.007	
7.0	.096	.067	.048	.082	.058	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.089	.061	.041	.077	.053	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.083	.055	.036	.072	.048	.031	.050	.033	.022	.029	.020	.013	.009	.006	.004	
10.0	.078	.050	.031	.067	.043	.027	.047	.031	.019	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0 Lamp Flux:599.021x1 lm										
NAME: REL6LED-WH-SD					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:2018042403		
MFR.:					SUR.:0.00362			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	7.6	8.3	7.8	8.4	8.6	7.3	7.9	7.5	8.1	8.2
3H	9.5	10.1	9.7	10.3	10.5	9.2	9.9	9.5	10.0	10.2
4H	10.3	10.9	10.6	11.1	11.3	10.1	10.7	10.4	10.9	11.1
6H	10.9	11.5	11.2	11.7	11.9	10.8	11.4	11.1	11.6	11.9
8H	11.2	11.7	11.5	12.0	12.2	11.1	11.7	11.4	11.9	12.2
12H	11.4	12.0	11.7	12.2	12.5	11.4	11.9	11.7	12.1	12.4
4H 2H	8.3	8.8	8.5	9.0	9.3	8.0	8.5	8.2	8.8	9.0
3H	10.3	10.8	10.6	11.0	11.3	10.0	10.5	10.3	10.8	11.1
4H	11.2	11.7	11.5	12.0	12.3	11.0	11.5	11.3	11.8	12.1
6H	11.9	12.4	12.3	12.7	13.0	11.9	12.3	12.3	12.7	13.0
8H	12.3	12.7	12.7	13.0	13.4	12.3	12.7	12.6	13.0	13.4
12H	12.6	13.0	13.0	13.3	13.7	12.6	12.9	13.0	13.3	13.7
8H 4H	11.6	12.0	12.0	12.4	12.7	11.5	11.9	11.9	12.2	12.6
6H	12.5	12.8	12.9	13.2	13.6	12.4	12.8	12.9	13.2	13.6
8H	12.9	13.2	13.3	13.6	14.0	12.9	13.2	13.3	13.6	14.0
12H	13.3	13.5	13.8	14.0	14.5	13.3	13.6	13.8	14.0	14.5
12H 4H	11.6	12.0	12.0	12.4	12.8	11.5	11.9	11.9	12.2	12.6
6H	12.6	12.9	13.1	13.3	13.8	12.6	12.9	13.1	13.3	13.8
8H	13.1	13.3	13.5	13.8	14.2	13.1	13.3	13.6	13.8	14.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.4 / - 0.3					+ 0.4 / - 0.4				
2.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.7				

CIE Pub.117 Corrected 599.0 lm Total Lamp Luminous Flux. (8log(F/F0) = -1.8)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0 Lamp Flux:599.021x1 lm		
NAME: REL6LED-WH-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042403
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	89	83	79	88	83	79	88	82	79	76
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	98	105	101	98	103	99	97	92
2.00	109	105	101	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:0V I:0A P:0W PF:0 Lamp Flux:599.021x1 lm		
NAME: REL6LED-WH-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042403
MFR.:	SUR.:0.00362	PROTECTION ANGLE:

Conical surface Flux(90deg):

576.7 lm

%lum = 96.3%

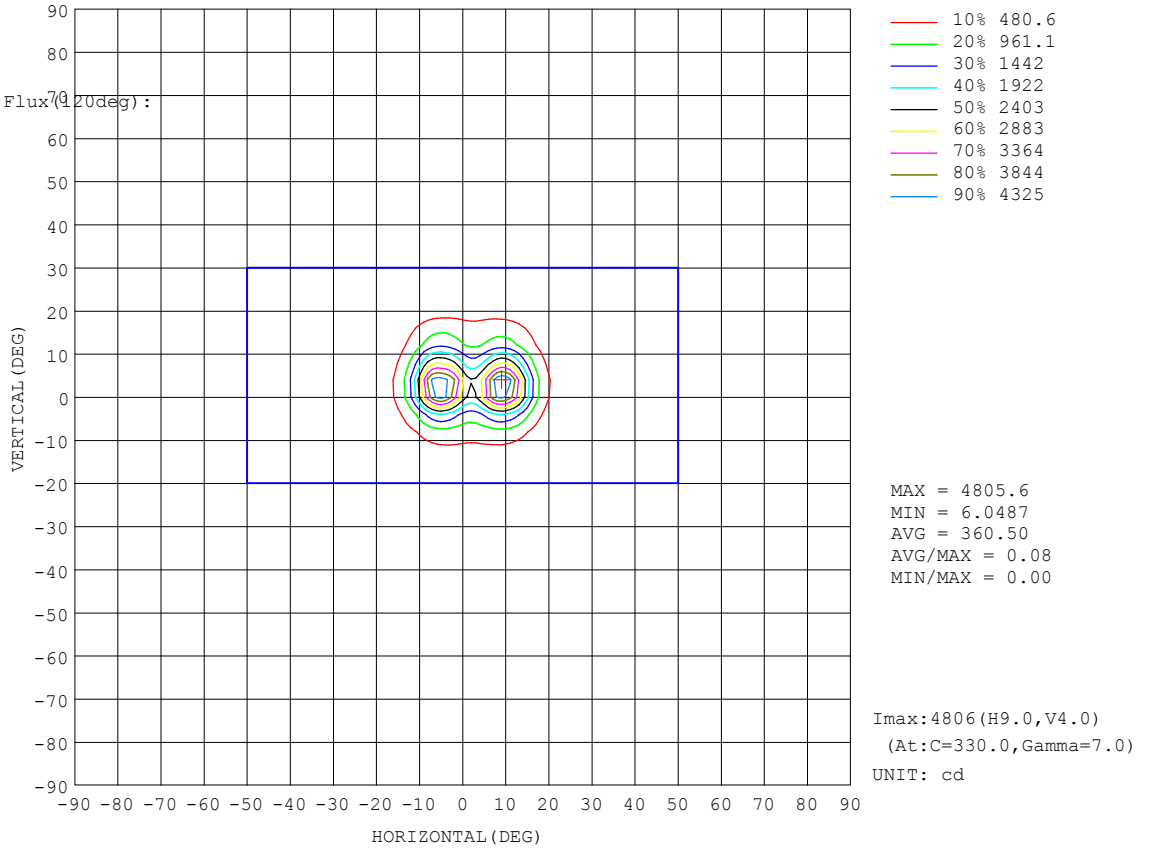
%lamp = 96.3%

Conical surface Flux(70deg):

586.6 lm

%lum = 97.9%

%lamp = 97.9%

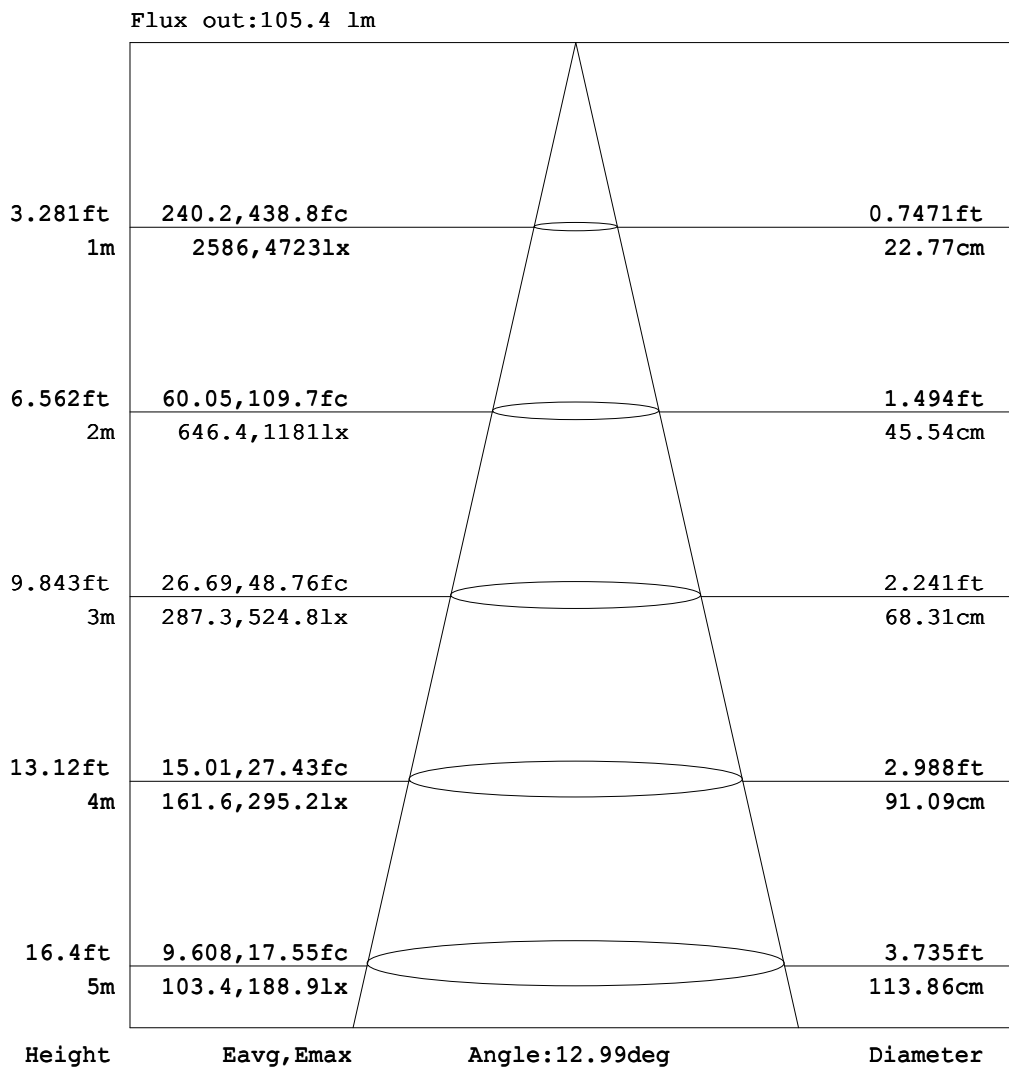


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

AAI Figure

Test:U:0V I:0A P:0W PF:0 Lamp Flux:599.02lx1 lm		
NAME: REL6LED-WH-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042403
MFR.:	SUR.:0.00362	PROTECTION ANGLE:



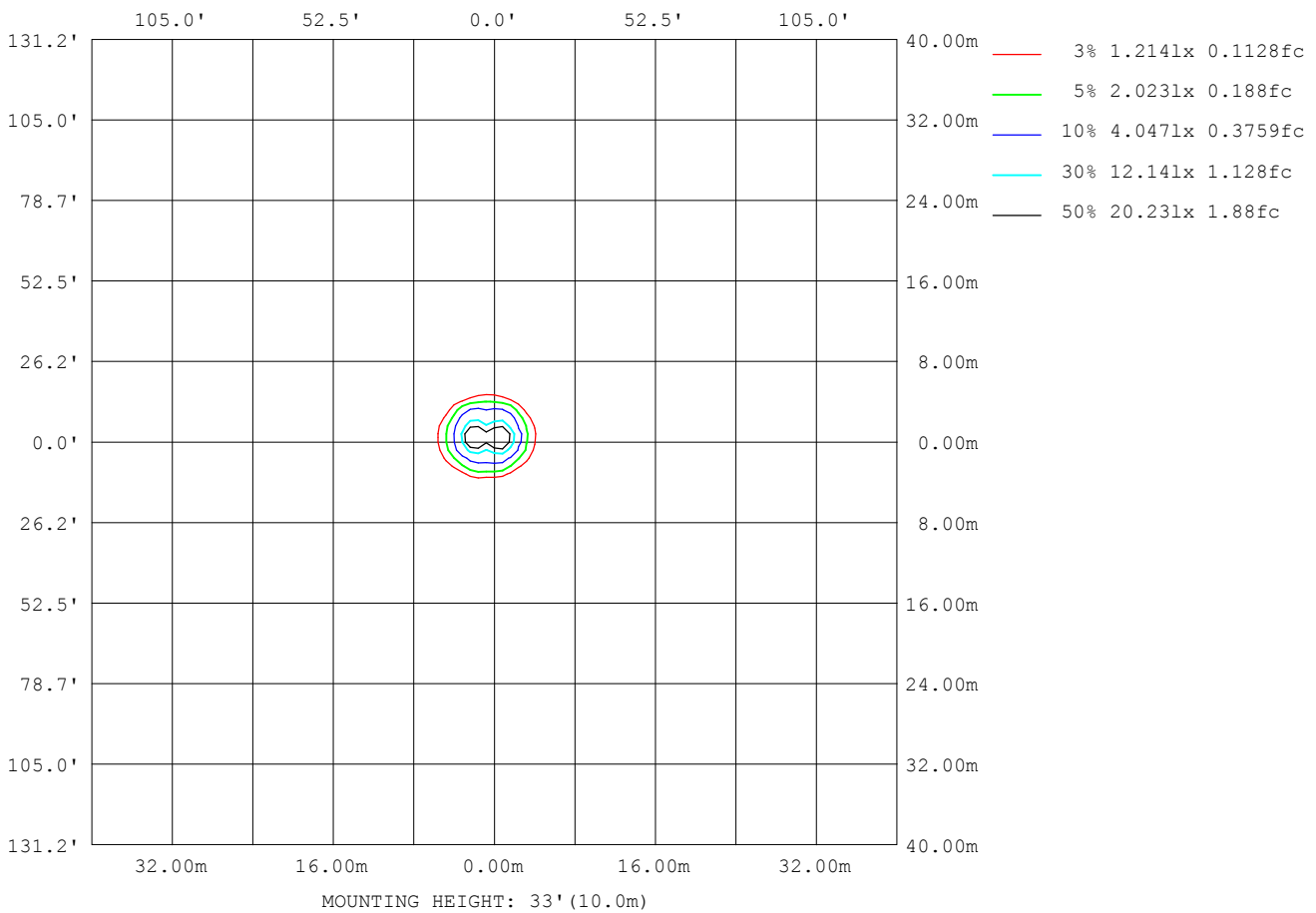
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

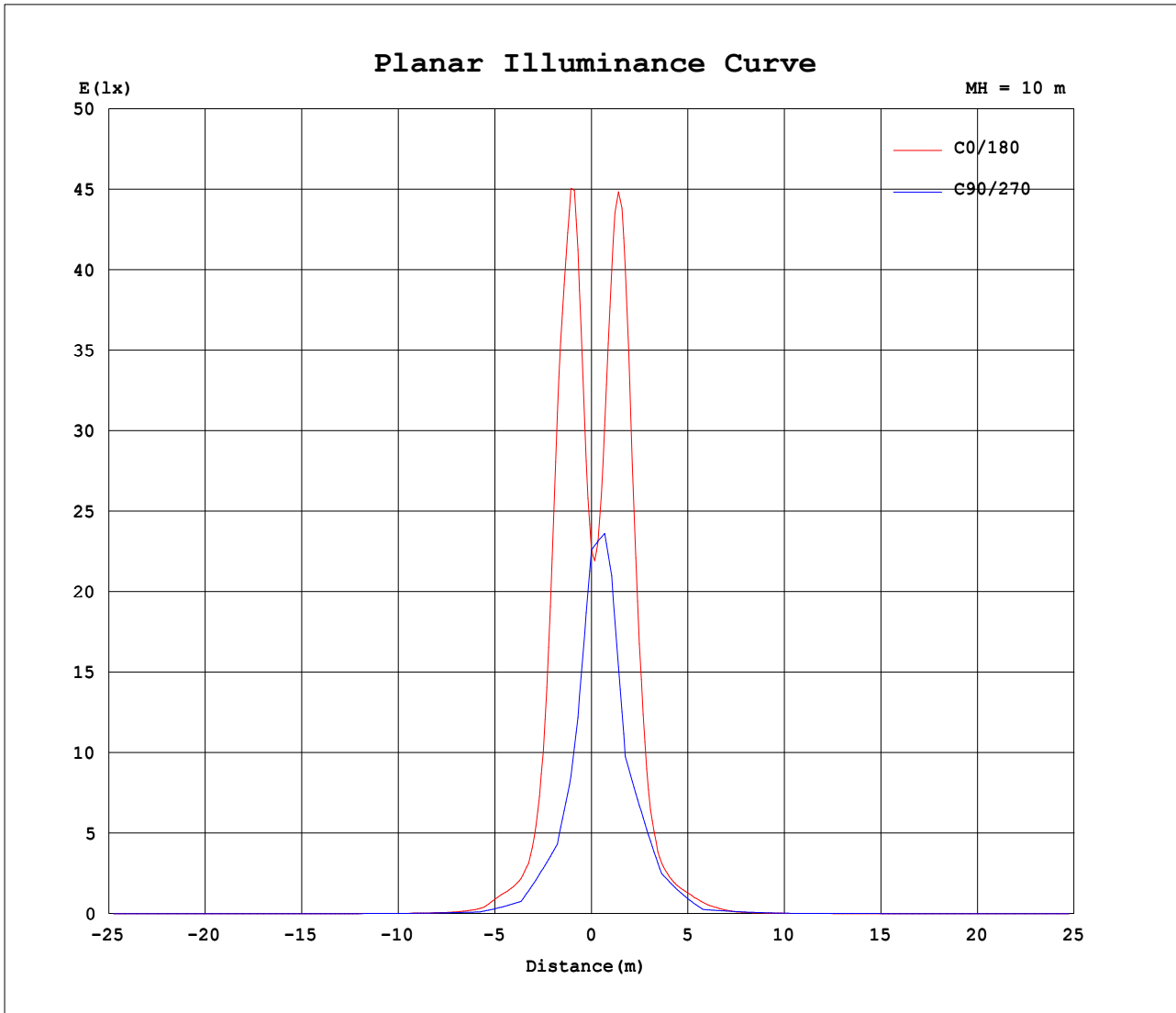
Test:U:0V I:0A P:0W PF:0 Lamp Flux:599.021x1 lm		
NAME: REL6LED-WH-SD	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:2018042403
MFR.:	SUR.:0.00362	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:WLM
 Test Date:2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:13.291m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: WLM
 Test Date: 2018-04-24

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 13.291m [K=1.0000]
 Remarks:

