

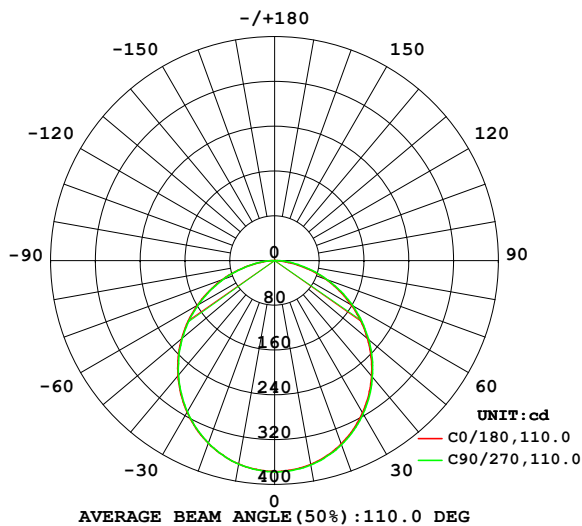


LUMINAIRE PHOTOMETRIC TEST REPORT

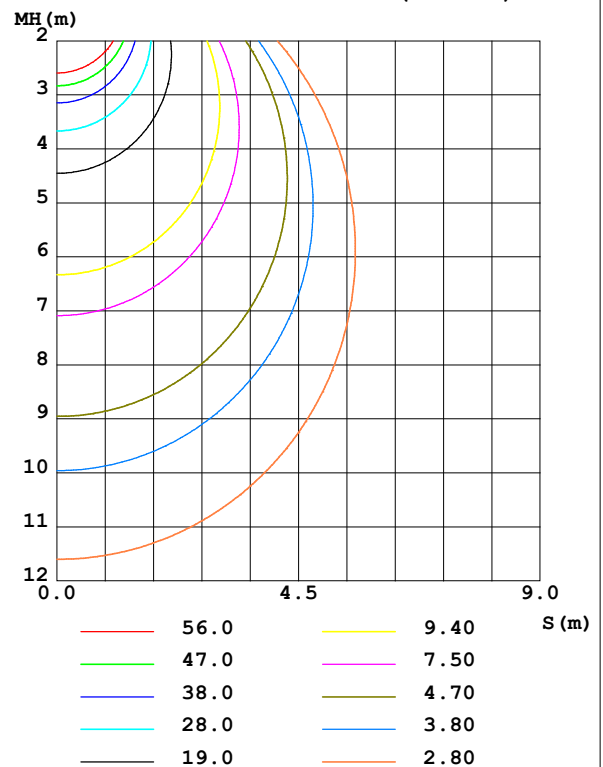
Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1046.59x1 lm		
NAME: 8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.70 lm/W			
MODEL	8544WH-90-5CCT 3500K	I _{max} (cd)	377.9	S/MH (C0/180)	1.24
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	120.0	TOTAL FLUX (lm)	1046.6	η UP, DN (C0-180)	0.0, 50.4
NOMINAL FLUX (lm)	1046.59	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3 °C
Operators:
Test Date: 2023-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity: 65.0%
Test Distance: 3.080m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

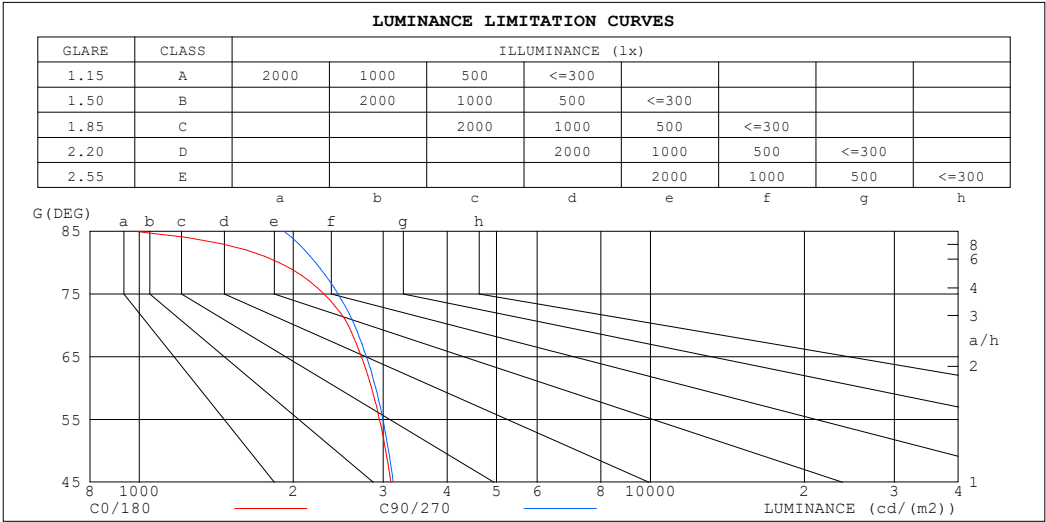
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	369.8	370.9	370.8	370.4	368.9	368.4	369.2	370.0	0- 10	35.66	35.66	3.41,3.41
20	348.4	349.9	350.1	349.0	347.2	346.2	346.7	348.2	10- 20	101.8	137.4	13.1,13.1
30	314.2	316.0	316.2	315.1	312.9	311.4	312.0	314.0	20- 30	153.2	290.7	27.8,27.8
40	269.7	271.6	272.0	270.8	268.6	266.7	267.3	269.2	30- 40	183.2	473.9	45.3,45.3
50	216.8	218.8	219.4	218.6	216.9	214.6	215.1	216.8	40- 50	188.3	662.2	63.3,63.3
60	158.1	160.0	161.1	160.5	159.2	156.9	157.1	158.5	50- 60	168.5	830.7	79.4,79.4
70	97.42	99.29	100.3	100.2	98.94	96.73	96.72	97.59	60- 70	127.3	958.0	91.5,91.5
80	36.19	39.91	42.70	40.67	37.60	38.29	40.29	38.66	70- 80	72.10	1030	98.4,98.4
90	0.3756	0.3827	0.4186	0.3938	0.2285	0.2499	0.2688	0.2474	80- 90	16.54	1047	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2023-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0Lamp Flux:1046.59x1 lm		
NAME: 8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:



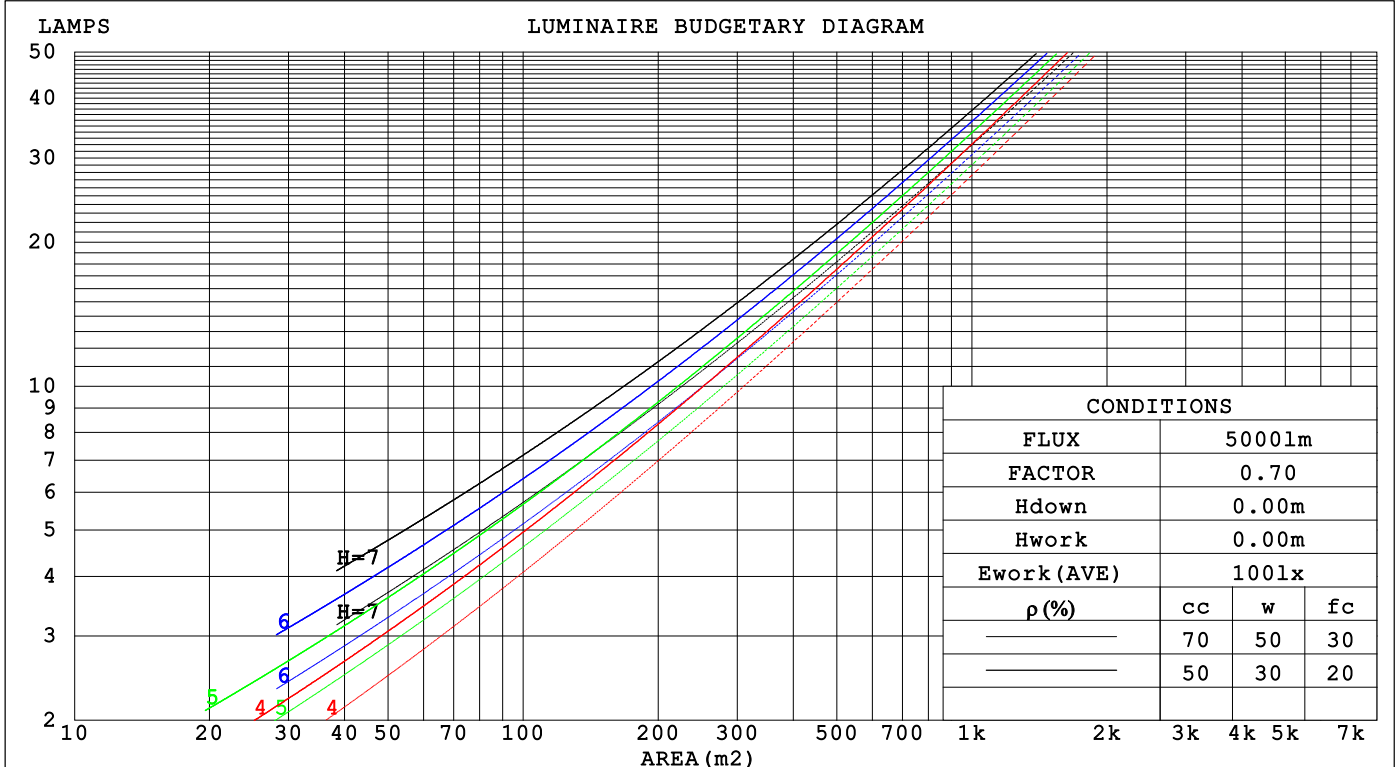
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	978	1918
80	1876	2213
75	2296	2447
70	2564	2638
65	2720	2781
60	2846	2900
55	2950	2994
50	3035	3072
45	3106	3138

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 22.5DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Temperature:25.3℃	Humidity:65.0%
Operators:	Test Distance:3.080m [K=1.0000]
Test Date:2023-06-30	Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0		
Lamp Flux:1046.59x1 lm		
NAME:8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding 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	1.00
1.0	1.04	.00	.96	1.02	.98	.94	.98	.94	.91	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.75	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.72	.65	.78	.71	.64	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.54	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.46	.40	.51	.45	.40	.38
7.0	.52	.43	.37	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.38	.33	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.36	.32	.30
9.0	.43	.35	.29	.43	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.26	.37	.31	.26	.36	.31	.26	.24



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2023-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0		
Lamp Flux:1046.59x1 lm		
NAME: 8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0														
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
pfc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Wall Exitance Coefficients(WEC)														
0.0																														
1.0	.305	.174	.055	.298	.170	.054	.285	.163	.052	.273	.157	.050	.262	.152	.049															
2.0	.289	.158	.049	.283	.156	.048	.271	.151	.047	.260	.146	.046	.250	.141	.045															
3.0	.268	.143	.043	.262	.140	.042	.252	.137	.042	.242	.133	.041	.234	.129	.040															
4.0	.248	.129	.038	.243	.127	.038	.234	.124	.037	.225	.121	.036	.217	.118	.036															
5.0	.229	.117	.034	.225	.115	.034	.217	.113	.033	.209	.110	.033	.202	.108	.032															
6.0	.213	.107	.030	.209	.105	.030	.201	.103	.030	.195	.101	.030	.188	.099	.029															
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.176	.092	.027															
8.0	.185	.090	.025	.182	.090	.025	.176	.088	.025	.171	.086	.025	.166	.085	.025															
9.0	.173	.084	.023	.171	.083	.023	.165	.082	.023	.161	.080	.023	.156	.079	.023															
10.0	.163	.078	.022	.161	.078	.022	.156	.076	.022	.151	.075	.021	.147	.074	.021															

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.064	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:
Test Date:2023-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity:65.0%
Test Distance:3.080m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1046.59x1 lm										
NAME: 8544WH-90-5CCT 3500K					TYPE:			WEIGHT:		
SPEC.: 3500K 90					DIM.:			SERIAL No.:		
MFR.: RP LIGHTING					SUR.:			Shielding 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	16.5	18.0	16.8	18.2	18.4	16.6	18.1	16.8	18.3	18.5
3H	18.0	19.4	18.3	19.6	19.8	18.1	19.5	18.4	19.7	19.9
4H	18.5	19.9	18.8	20.1	20.4	18.7	20.0	19.0	20.2	20.5
6H	18.9	20.1	19.2	20.4	20.7	19.1	20.3	19.4	20.6	20.9
8H	18.9	20.2	19.3	20.4	20.7	19.2	20.4	19.6	20.7	21.0
12H	19.0	20.1	19.3	20.4	20.7	19.3	20.5	19.7	20.8	21.1
4H 2H	17.1	18.4	17.4	18.7	18.9	17.2	18.5	17.5	18.7	19.0
3H	18.8	19.9	19.1	20.2	20.5	18.8	20.0	19.2	20.3	20.6
4H	19.4	20.5	19.8	20.8	21.2	19.6	20.6	19.9	21.0	21.3
6H	19.9	20.8	20.3	21.2	21.6	20.1	21.1	20.5	21.4	21.8
8H	20.0	20.9	20.4	21.3	21.7	20.3	21.2	20.7	21.6	22.0
12H	20.1	20.9	20.5	21.2	21.7	20.5	21.3	20.9	21.6	22.0
8H 4H	19.7	20.6	20.1	20.9	21.3	19.8	20.7	20.2	21.1	21.5
6H	20.3	21.0	20.7	21.4	21.9	20.5	21.3	21.0	21.7	22.1
8H	20.5	21.1	20.9	21.6	22.0	20.8	21.4	21.3	21.9	22.3
12H	20.6	21.1	21.0	21.6	22.0	21.0	21.6	21.5	22.0	22.5
12H 4H	19.7	20.5	20.1	20.9	21.3	19.8	20.6	20.3	21.0	21.4
6H	20.4	21.0	20.8	21.4	21.9	20.6	21.2	21.0	21.6	22.1
8H	20.6	21.1	21.0	21.6	22.0	20.9	21.4	21.4	21.9	22.4
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1047 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.2$)
 Area: 0.111111 m²

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:2023-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1046.59x1 lm		
NAME: 8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

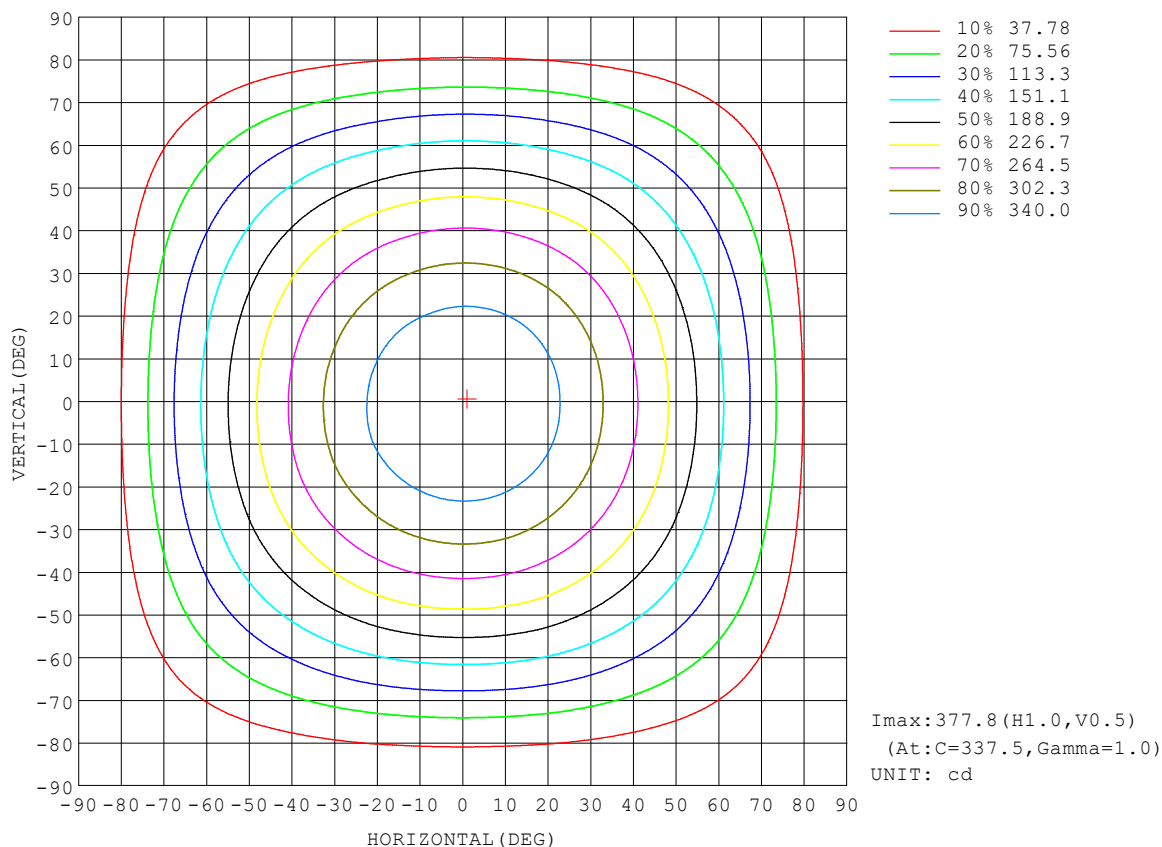
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	65	55	49	42
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	66	79	71	65	57
1.50	88	79	72	87	78	71	84	76	70	63
2.00	95	87	80	93	86	80	90	83	78	70
2.50	99	91	85	97	90	85	93	87	83	74
3.00	102	96	90	100	94	89	96	91	87	79
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	99	95	86
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators:
 Test Date: 2023-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1046.59x1 lm		
NAME: 8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

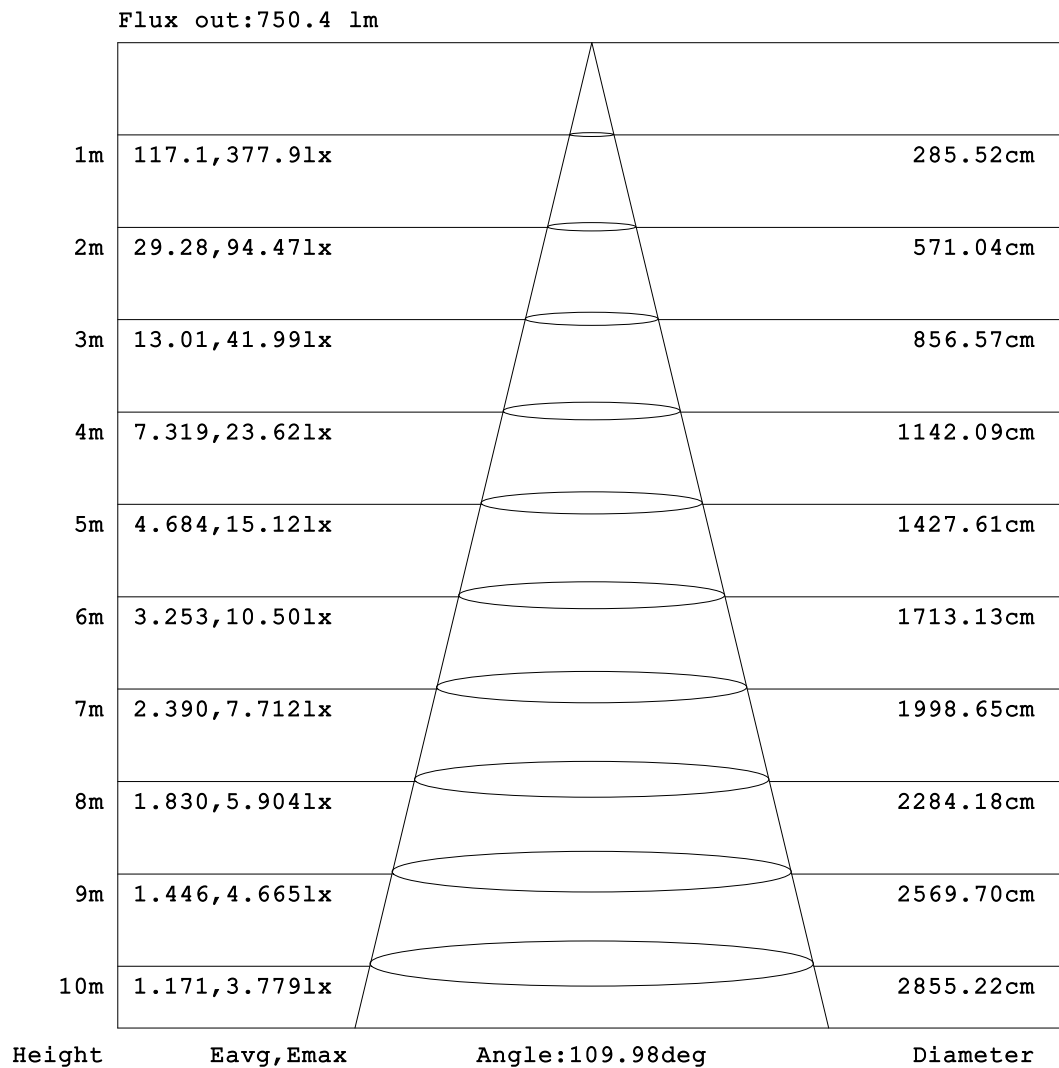


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:
Test Date:2023-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity:65.0%
Test Distance:3.080m [K=1.0000]
Remarks:

AAI Figure

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1046.59x1 lm		
NAME: 8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:



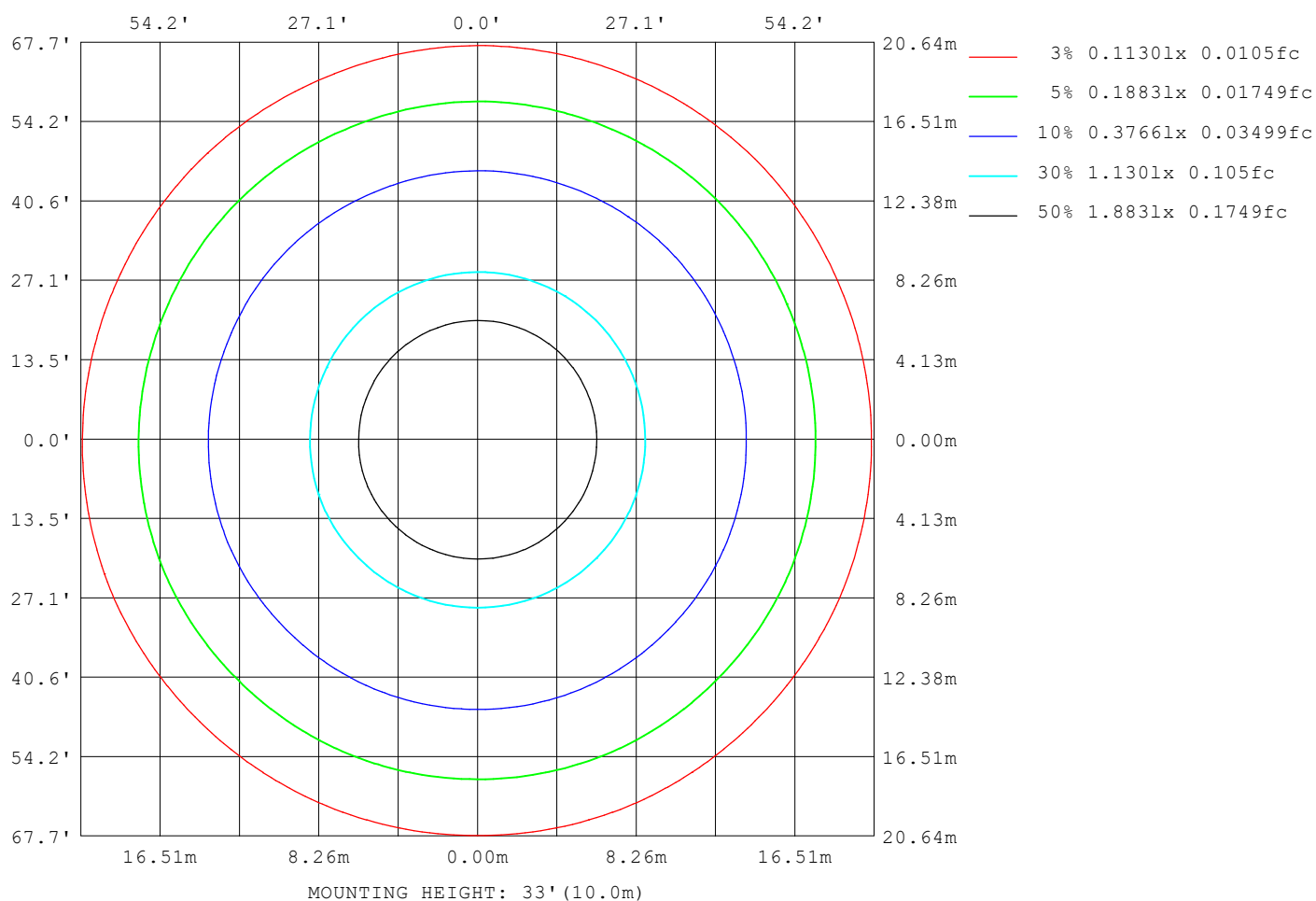
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:
Test Date:2023-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity:65.0%
Test Distance:3.080m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1046.59x1 lm		
NAME: 8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
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C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity: 65.0%
Test Distance: 3.080m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:119.79V I:0.1114A P:13.132W PF:0.9838 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1046.59x1 lm		
NAME: 8544WH-90-5CCT 3500K	TYPE:	WEIGHT:
SPEC.: 3500K 90	DIM.:	SERIAL No.:
MFR.: RP LIGHTING	SUR.:	Shielding Angle:

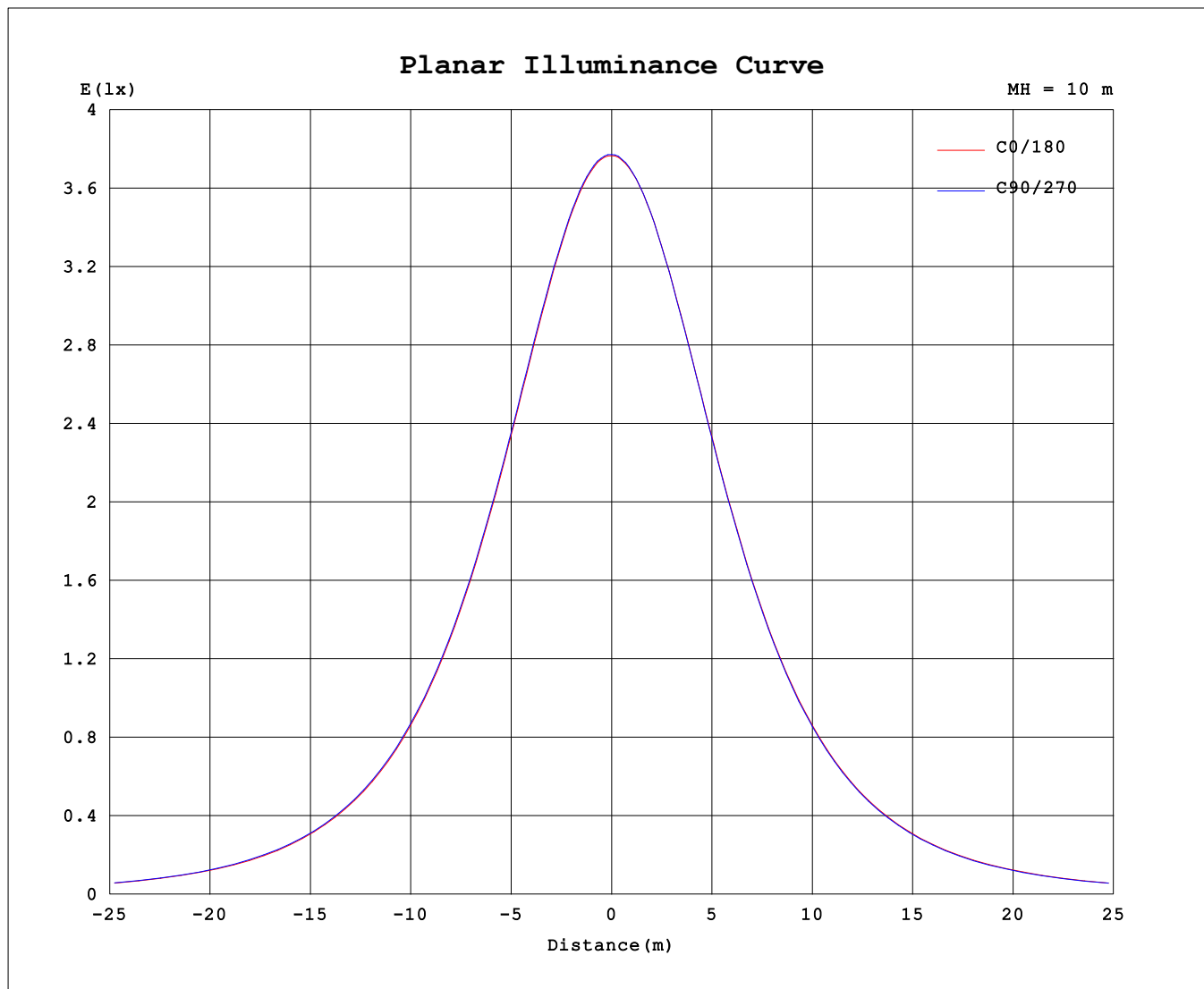
AvgL	cd/m2
L_0~180 (65) av	2734
L_0~180 (75) av	2325
L_0~180 (85) av	1046
L_90~270 (65) av	2742
L_90~270 (75) av	2394
L_90~270 (85) av	1821
L_45 (65) av	2740
L_45 (75) av	2377
L_45 (85) av	1347

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:
Test Date:2023-06-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity:65.0%
Test Distance:3.080m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3 °C
Operators:
Test Date: 2023-06-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity: 65.0%
Test Distance: 3.080m [K=1.0000]
Remarks:

