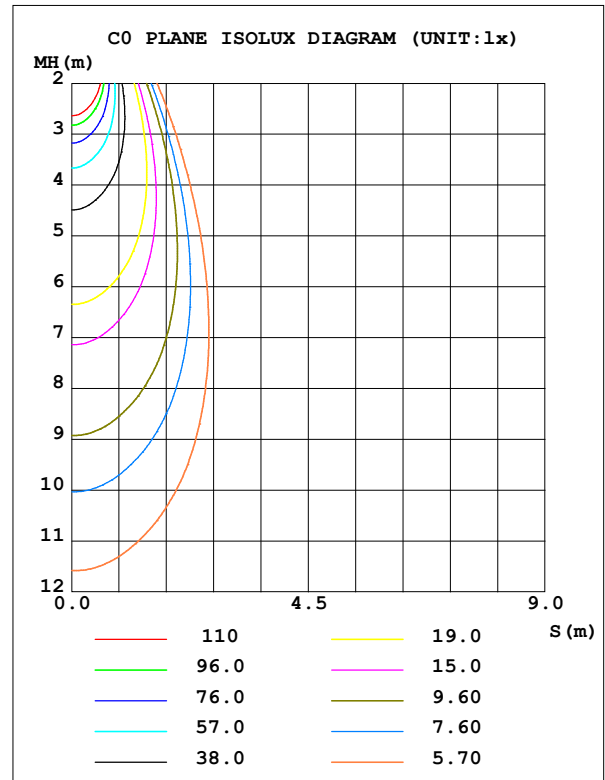
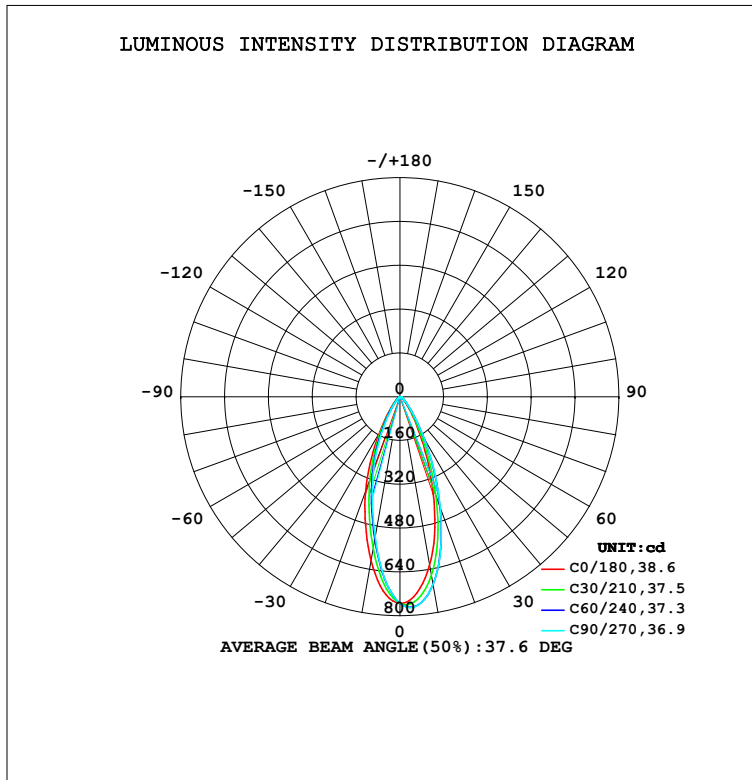


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm		
NAME: SL224-40-G-N-Q4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Switch Lighting	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 56.97 lm/W
MODEL		I _{max} (cd)	770.9	S/MH (C0/180)		0.62
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)		0.50
RATED VOLTAGE (V)		TOTAL FLUX (lm)	398.79	η UP,DN (C0-180)		0.0,57.2
NOMINAL FLUX (lm)	398.785	CIE CLASS	DIRECT	η UP,DN (C180-360)		0.0,42.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.50
TEST VOLTAGE (V)		η down (%)	100.0	CIBSE SHR MAX		0.65



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_v1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

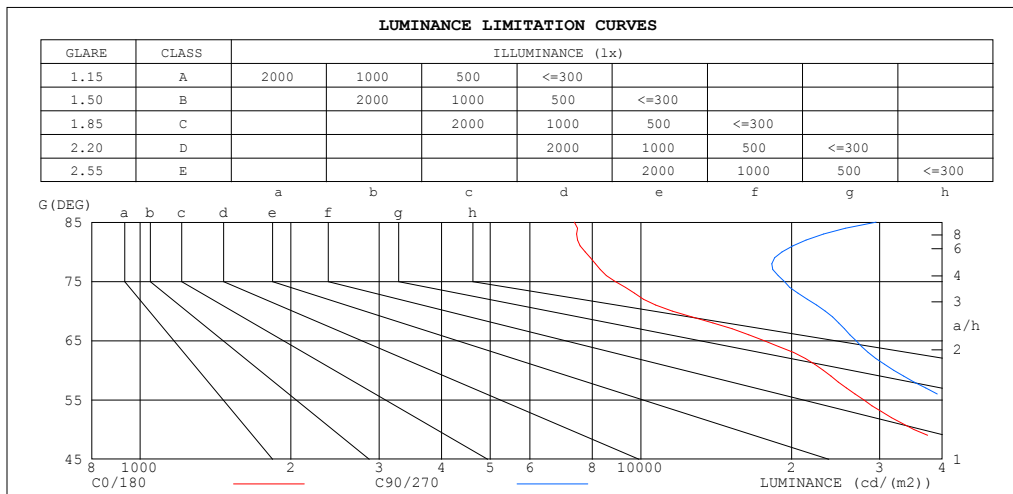
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	625.3	679.6	696.5	662.3	608.4	546.8	522.2	558.6	0- 10	64.85	64.85	16.3,16.3
20	347.3	406.7	431.1	407.3	367.8	307.7	282.6	298.0	10- 20	133.4	198.3	49.7,49.7
30	127.0	162.4	177.8	171.3	146.4	122.8	105.6	111.2	20- 30	108.2	306.5	76.9,76.9
40	43.58	56.16	59.97	58.64	47.00	35.80	28.65	31.63	30- 40	51.49	358.0	89.8,89.8
50	15.74	23.91	25.44	25.95	18.53	12.13	8.963	10.63	40- 50	22.12	380.1	95.3,95.3
60	8.077	11.21	11.34	12.80	9.073	3.920	1.608	2.492	50- 60	10.81	390.9	98,98
70	2.757	5.423	5.659	6.063	3.140	0.5802	0.3281	0.5750	60- 70	4.945	395.8	99.3,99.3
80	0.9377	2.209	2.356	2.620	0.7712	0.0759	0	0.0854	70- 80	2.100	397.9	99.8,99.8
90	0	0.7828	1.171	0.9756	0.0351	0.0061	0	0.0022	80- 90	0.8467	398.8	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: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_v1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm		
NAME: SL224-40-G-N-Q4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Switch Lighting	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	7365	29518
80	7745	19158
75	8876	19345
70	11562	23359
65	17605	26896
60	23169	32004
55	27863	41426
50	35129	55874
45	52058	75291

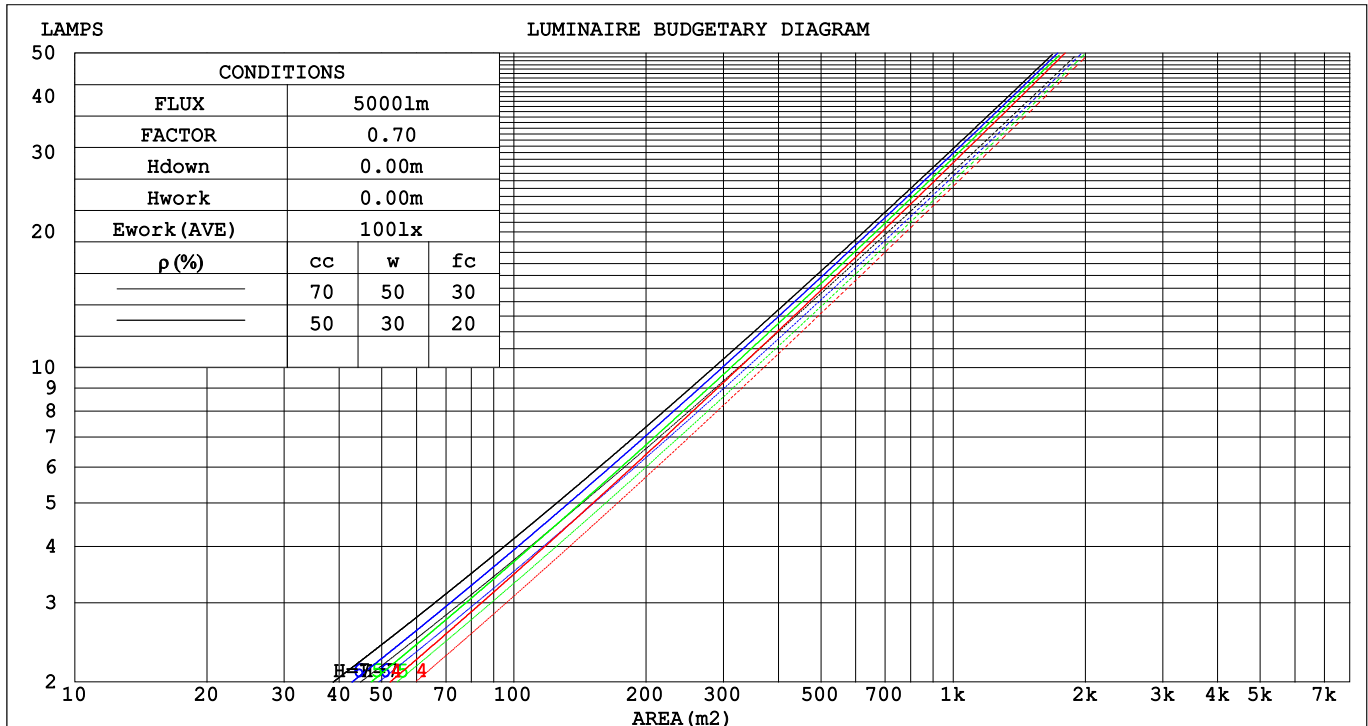
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm		
NAME: SL224-40-G-N-Q4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Switch 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															



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm																	
NAME: SL224-40-G-N-Q4									TYPE:			WEIGHT:					
SPEC.:									DIM.:			SERIAL No.:					
MFR.: Switch 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	.176	.100	.032	.169	.097	.031	.157	.090	.029	.145	.084	.027	.135	.078	.025	
2.0	.167	.092	.028	.161	.089	.027	.151	.084	.026	.141	.079	.025	.132	.075	.024	
3.0	.158	.084	.025	.153	.082	.025	.144	.078	.024	.136	.074	.023	.128	.071	.022	
4.0	.149	.078	.023	.145	.076	.022	.138	.073	.022	.130	.070	.021	.124	.067	.020	
5.0	.142	.072	.021	.138	.071	.021	.131	.068	.020	.125	.066	.020	.119	.064	.019	
6.0	.134	.067	.019	.131	.066	.019	.125	.064	.019	.120	.062	.018	.115	.060	.018	
7.0	.128	.063	.018	.125	.062	.018	.120	.061	.017	.115	.059	.017	.111	.057	.017	
8.0	.122	.060	.017	.120	.059	.017	.115	.057	.016	.111	.056	.016	.106	.055	.016	
9.0	.117	.056	.016	.114	.056	.016	.110	.054	.015	.106	.053	.015	.103	.052	.015	
10.0	.112	.053	.015	.110	.053	.015	.106	.052	.015	.102	.051	.014	.099	.050	.014	

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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.053	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.115	.078	.051	.099	.067	.044	.068	.047	.031	.040	.028	.019	.013	.009	.006	
7.0	.109	.070	.043	.093	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.088	.055	.032	.061	.039	.023	.036	.023	.014	.012	.007	.004	
9.0	.097	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.080	.047	.024	.055	.033	.017	.032	.019	.010	.010	.006	.003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm											
NAME: SL224-40-G-N-Q4					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.: Switch 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	2H	25.1	26.0	25.3	26.1	26.3	26.4	27.3	26.6	27.4	27.6
	3H	25.2	26.1	25.5	26.3	26.5	26.7	27.5	26.9	27.7	27.9
	4H	25.2	26.0	25.5	26.3	26.5	26.8	27.6	27.0	27.8	28.0
	6H	25.2	26.0	25.5	26.2	26.5	26.8	27.6	27.1	27.8	28.1
	8H	25.2	25.9	25.5	26.2	26.4	26.9	27.6	27.2	27.9	28.1
	12H	25.2	25.9	25.5	26.1	26.4	27.0	27.7	27.3	27.9	28.2
4H	2H	25.2	26.0	25.5	26.2	26.4	26.4	27.2	26.7	27.4	27.6
	3H	25.5	26.2	25.9	26.5	26.8	26.8	27.5	27.1	27.8	28.1
	4H	25.7	26.3	26.0	26.6	26.9	27.0	27.6	27.4	27.9	28.2
	6H	25.7	26.3	26.1	26.6	26.9	27.2	27.7	27.5	28.0	28.4
	8H	25.7	26.2	26.1	26.6	27.0	27.3	27.8	27.6	28.1	28.5
	12H	25.7	26.2	26.1	26.6	26.9	27.4	27.9	27.8	28.2	28.6
8H	4H	25.7	26.3	26.1	26.6	27.0	27.0	27.5	27.4	27.9	28.2
	6H	25.9	26.3	26.3	26.7	27.1	27.2	27.7	27.7	28.0	28.5
	8H	26.0	26.3	26.4	26.8	27.2	27.4	27.8	27.8	28.2	28.6
	12H	26.0	26.3	26.5	26.8	27.3	27.6	28.0	28.1	28.4	28.9
12H	4H	25.7	26.2	26.1	26.6	26.9	27.0	27.5	27.4	27.8	28.2
	6H	25.9	26.3	26.4	26.7	27.2	27.2	27.6	27.7	28.0	28.5
	8H	26.0	26.4	26.5	26.8	27.3	27.4	27.7	27.9	28.2	28.6
Variations with the observer position at spacings:											
S = 1.0H	+ 1.1 / - 1.7					+ 1.2 / - 1.5					
1.5H	+ 1.6 / - 1.8					+ 2.0 / - 1.2					
2.0H	+ 1.5 / - 1.7					+ 1.9 / - 1.2					

CIE Pub.117, 398.8 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -3.2$)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm		
NAME: SL224-40-G-N-Q4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Switch Lighting	SUR.:	Shielding Angle:

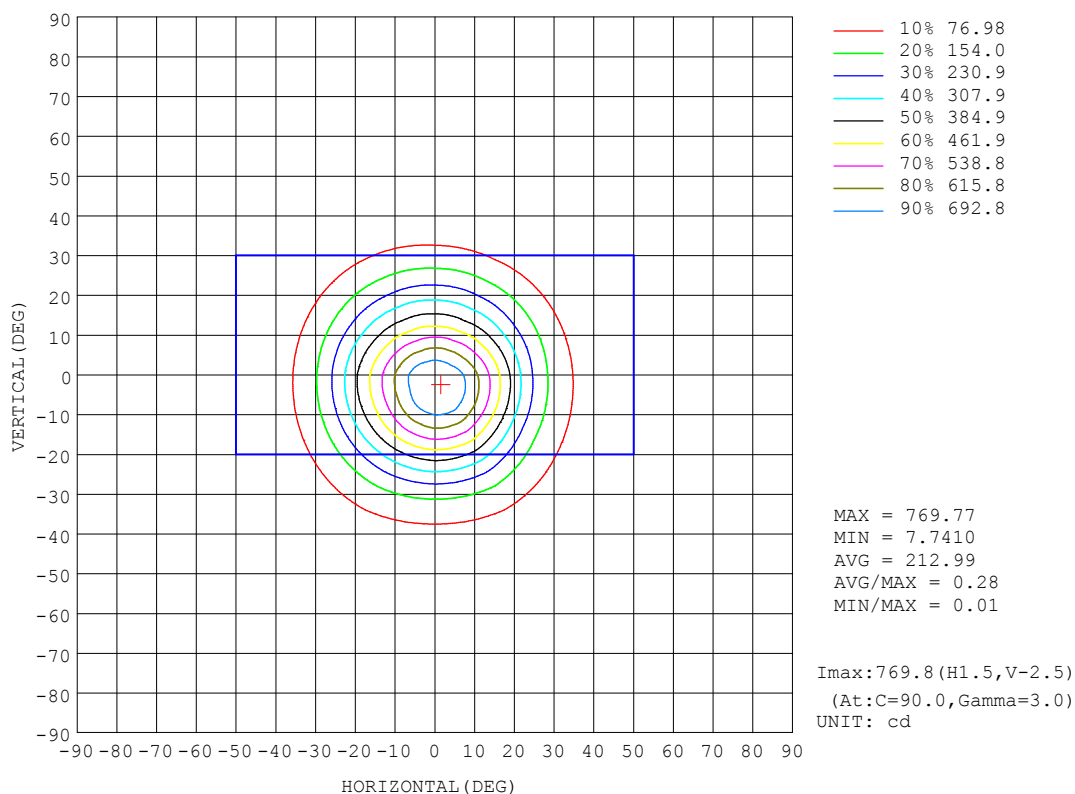
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	85	78	74	84	78	74	70
0.80	93	87	83	92	86	82	91	86	82	78
1.00	98	92	88	97	91	87	95	91	87	83
1.25	102	96	93	101	96	92	99	95	91	87
1.50	105	100	96	103	99	96	101	97	95	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	110	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	112	110	109	108	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm		
NAME: SL224-40-G-N-Q4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Switch Lighting	SUR.:	Shielding Angle:

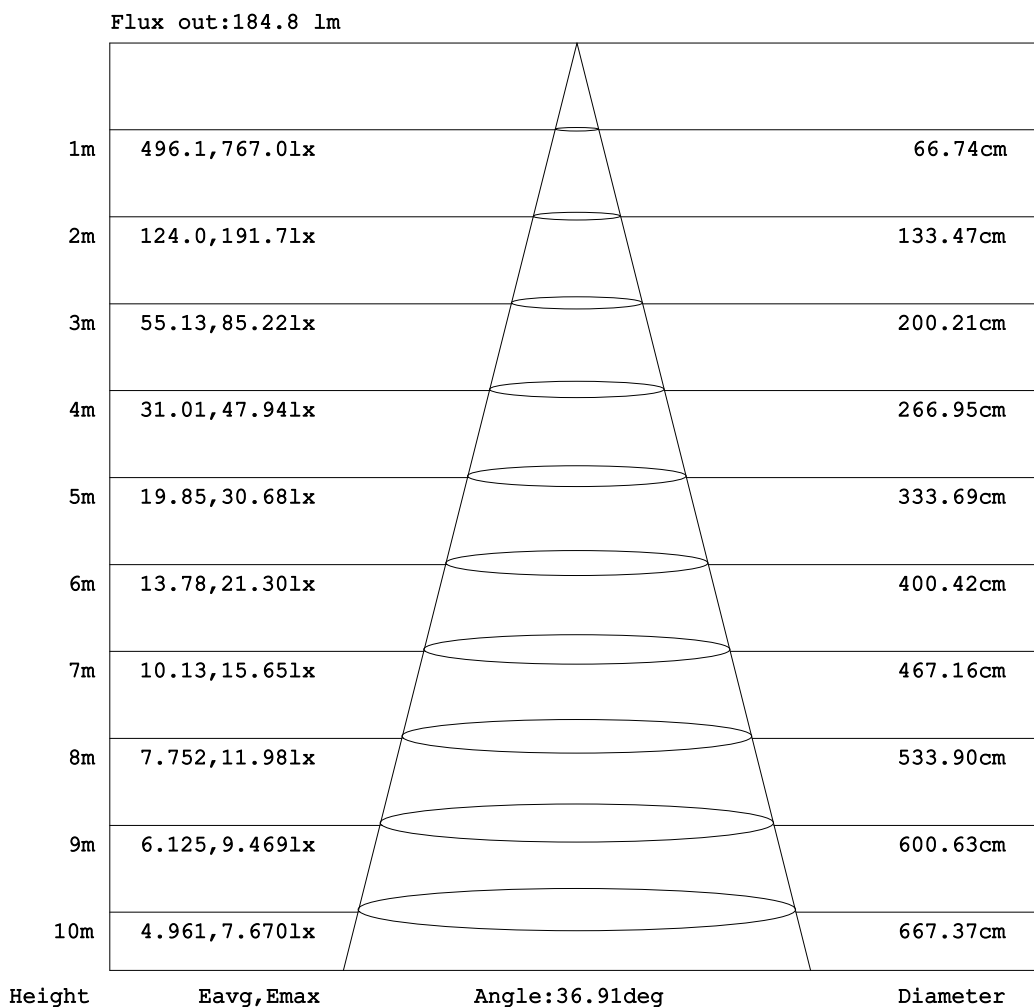


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Doug
 Test Date:05 June 2020

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-i300_v1 SYSTEM V2.0.401
 Humidity:65.0%
 Test Distance:3.160m [K=1.0000]
 Remarks:

AAI Figure

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm		
NAME: SL224-40-G-N-Q4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Switch Lighting	SUR.:	Shielding Angle:



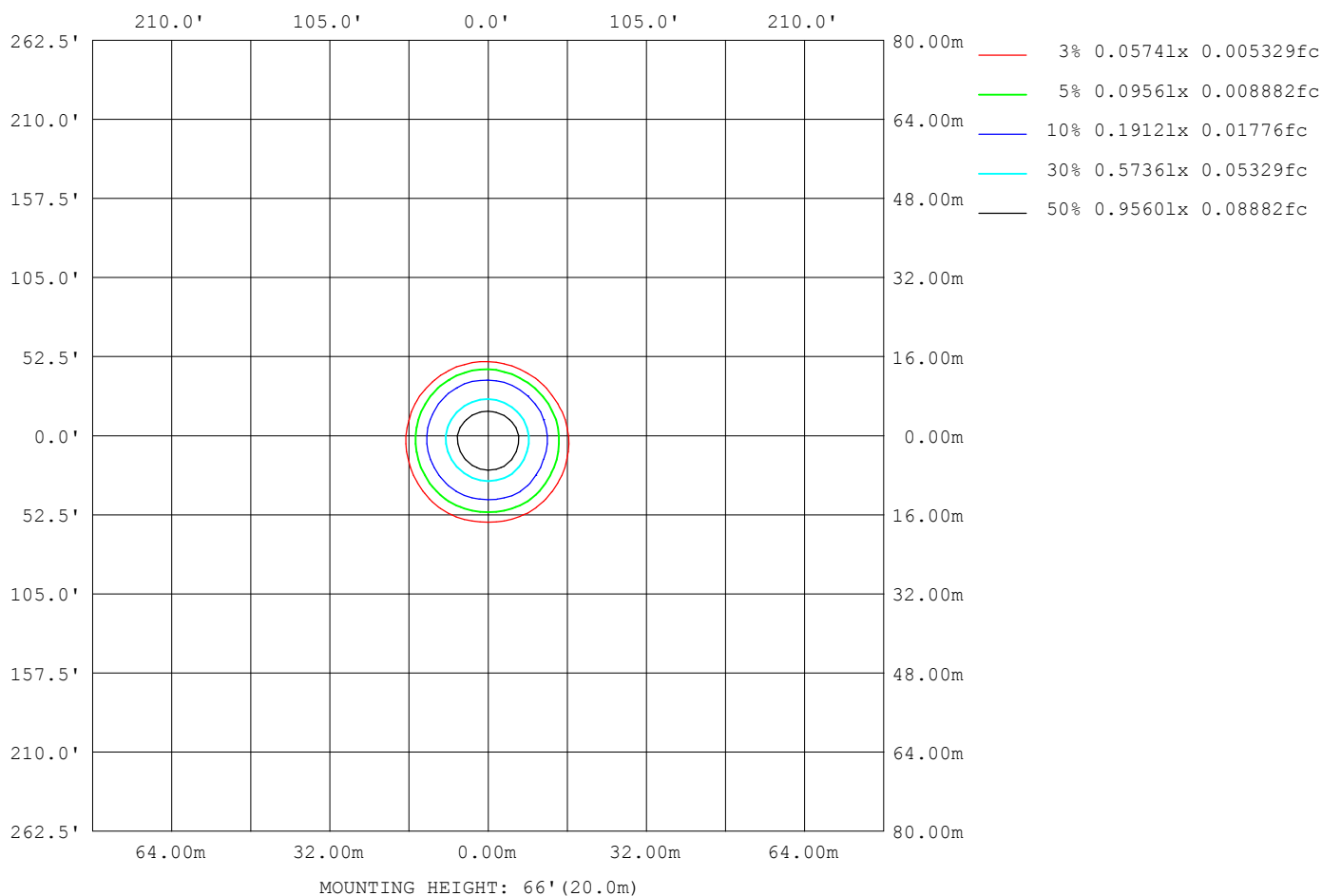
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm		
NAME: SL224-40-G-N-Q4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Switch Lighting	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:229.90V I:0.0450A P:7.0000W PF:0.6910 Freq:50.00Hz Lamp Flux:398.785x1 lm		
NAME: SL224-40-G-N-Q4	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Switch Lighting	SUR.:	Shielding Angle:

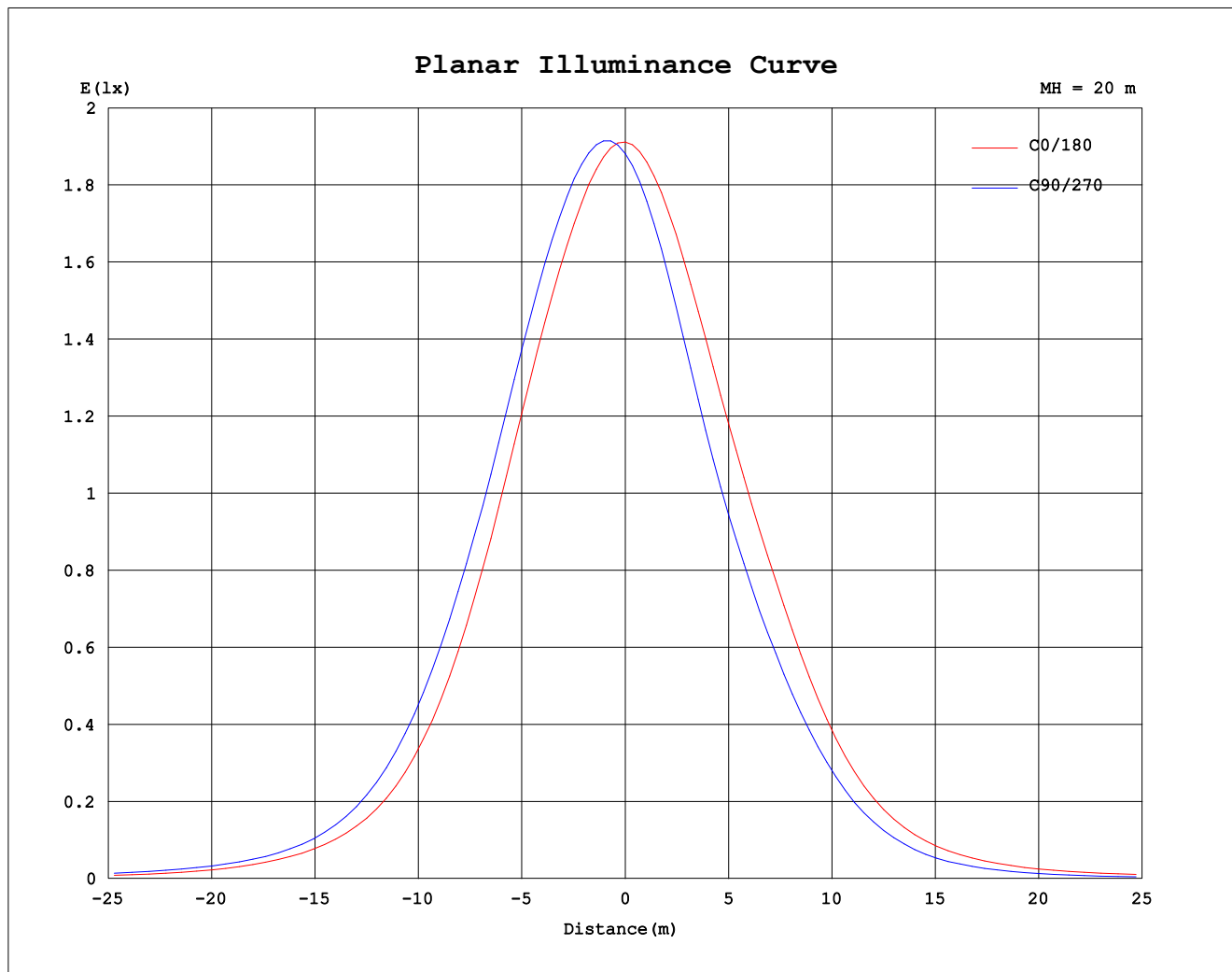
AvgL	cd/m2
L_0~180 (65) av	17723
L_0~180 (75) av	7949
L_0~180 (85) av	6731
L_90~270 (65) av	14462
L_90~270 (75) av	9736
L_90~270 (85) av	14791
L_45 (65) av	16154
L_45 (75) av	11741
L_45 (85) av	14030

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Doug
Test Date:05 June 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Doug
 Test Date: 05 June 2020

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-i300_V1 SYSTEM V2.0.401
 Humidity: 65.0%
 Test Distance: 3.160m [K=1.0000]
 Remarks:

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-i300_V1 SYSTEM V2.0.401
Humidity: 65.0%
Test Distance: 3.160m [K=1.0000]
Remarks:

```