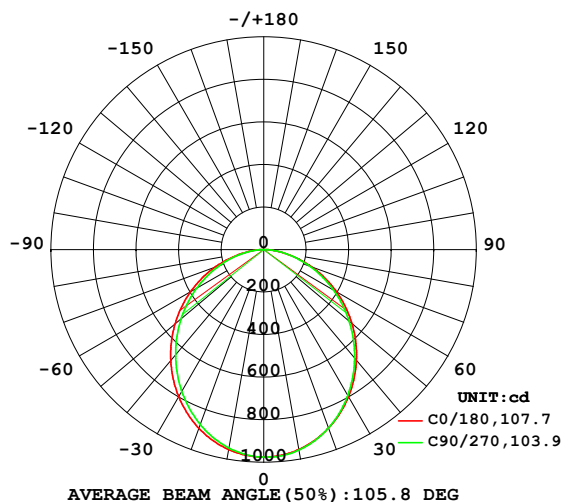


LUMINAIRE PHOTOMETRIC TEST REPORT

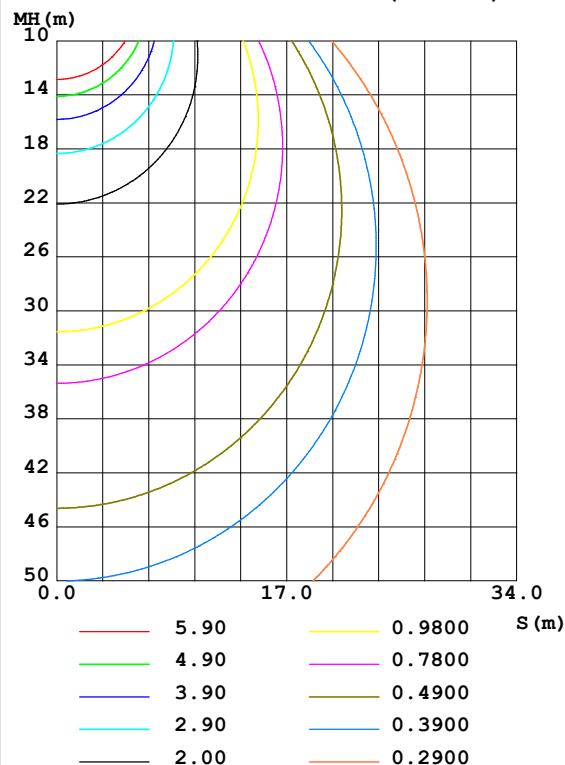
Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB DR_1492_REC_WHT_OPAL_HE_500mA_4000K CRI90TYPE:LED		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 101.04 lm/W			
LLE 20000mm	1300lm 940 HV ADV6	Imax(cd)	976.0	S/MH(C0/180)	1.22
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.18
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2592.2	η UP,DN(C0-180)	0.0,50.4
NOMINAL FLUX(lm)	2592.22	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)	230	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: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:28 November 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.889m [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	969.9	971.9	972.8	972.7	970.1	968.9	967.3	968.1	0- 5	23.26	23.26	0.90,0.90
10	953.8	956.1	956.9	957.8	954.4	950.8	946.7	949.1	5- 10	68.81	92.07	3.55,3.55
15	927.9	929.3	929.6	931.8	928.7	922.2	915.4	919.7	10- 15	111.5	203.5	7.85,7.85
20	892.5	892.6	892.1	895.8	893.5	884.0	874.6	880.8	15- 20	149.5	353.0	13.6,13.6
25	848.8	847.2	845.5	851.1	850.1	837.8	825.8	833.8	20- 25	181.5	534.5	20.6,20.6
30	797.9	794.3	791.1	798.8	799.4	784.7	770.5	780.1	25- 30	206.5	741.0	28.6,28.6
35	740.7	735.2	730.5	740.3	742.5	725.9	709.9	720.9	30- 35	223.8	964.9	37.2,37.2
40	678.4	671.0	665.1	676.6	680.6	662.6	645.4	657.1	35- 40	233.1	1198	46.2,46.2
45	612.0	602.9	596.2	608.9	614.5	595.8	577.8	589.8	40- 45	234.5	1432	55.3,55.3
50	542.1	531.7	524.8	538.1	545.0	526.2	507.9	519.9	45- 50	228.1	1661	64.1,64.1
55	469.6	458.4	451.7	465.2	472.7	454.4	436.7	447.8	50- 55	214.4	1875	72.3,72.3
60	394.7	383.6	377.7	390.6	398.1	381.3	364.7	374.3	55- 60	194.1	2069	79.8,79.8
65	318.3	308.2	303.7	315.4	322.0	307.5	292.7	300.3	60- 65	168.0	2237	86.3,86.3
70	241.5	233.6	231.2	240.8	245.5	234.4	222.1	227.3	65- 70	137.3	2374	91.6,91.6
75	166.1	161.7	161.3	168.6	170.3	163.8	154.3	156.7	70- 75	103.6	2478	95.6,95.6
80	96.10	95.32	96.47	101.8	100.0	98.30	91.30	91.81	75- 80	68.96	2547	98.2,98.2
85	37.57	37.65	38.58	43.19	40.19	41.15	35.44	35.60	80- 85	36.16	2583	99.6,99.6
90	0.8391	0.7145	0.7147	1.598	1.272	1.330	0.6378	0.6488	85- 90	9.304	2592	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		

Conical surface Flux(90deg): 1432.5 lm

%lum = 55.3%

%lamp = 55.3%

Conical surface Flux(120deg): 2069 lm

%lum = 79.8%

%lamp = 79.8%

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: MEDIUM

Temperature:25.3DEG

Operators:JEFF

Test Date:28 November 2024

 γ Range: 0 - 90DEG γ Interval: 0.5DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295

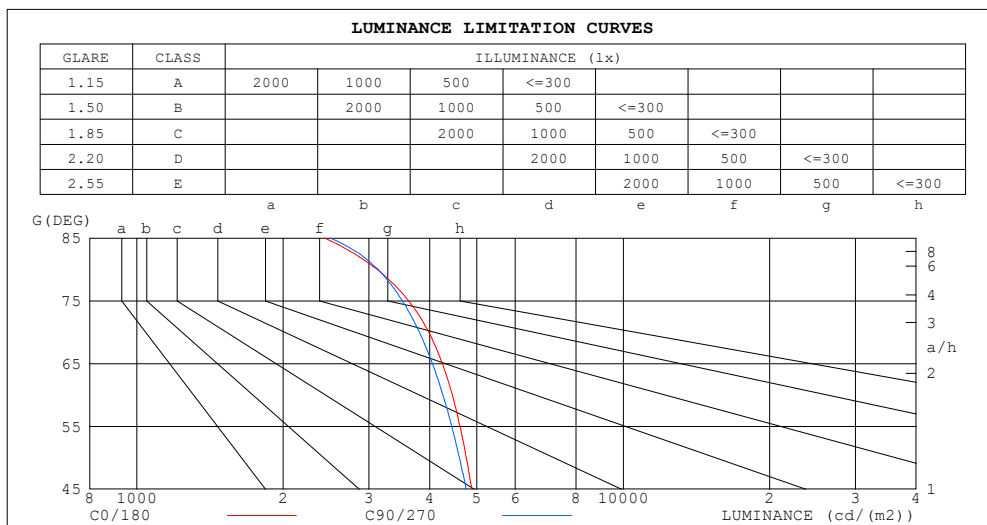
Humidity:65.0%

Test Distance:7.889m [K=1.0000]

Remarks:

LUMINANCE LIMITATION CURVES

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB_DR_1492_REC_WHT_OPAL_HE_500mA_4000K_CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2432	2496
80	3122	3133
75	3620	3515
70	3983	3812
65	4248	4053
60	4453	4260
55	4618	4441
50	4758	4604
45	4882	4755

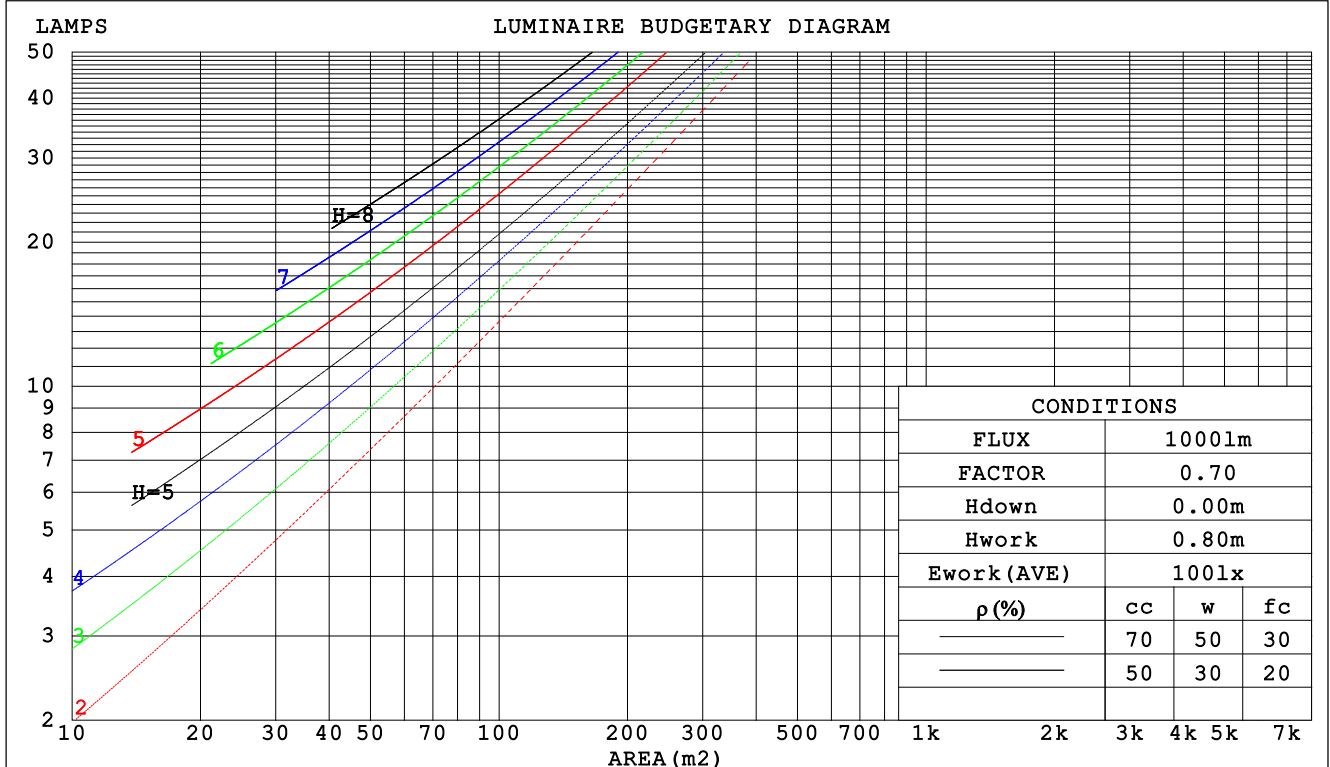
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:28 November 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.889m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB_DR_1492_REC_WHT_OPAL_HE_500mA_4000K CRI90TYPE:LED		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding 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	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	.95	.98	.94	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.79	.89	.83	.78	.86	.80	.76	.82	.78	.74	.79	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.63	.70	.65	.62	.59
4.0	.71	.62	.56	.70	.62	.55	.67	.60	.54	.65	.59	.54	.63	.57	.53	.51
5.0	.64	.55	.48	.62	.54	.48	.60	.53	.47	.58	.52	.47	.56	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.42	.54	.47	.41	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.38	.33	.43	.37	.32	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.28
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: MEDIUM

Temperature:25.3DEG

Operators:JEFF

Test Date:28 November 2024

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295

Humidity:65.0%

Test Distance:7.889m [K=1.0000]

Remarks:

WEC AND CCEC

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB_DR_1492_REC_WHT_OPAL_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	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	.304	.173	.055	.297	.169	.054	.284	.163	.052	.272	.157	.050	.260	.151	.049		
2.0	.287	.157	.048	.281	.155	.048	.269	.150	.046	.258	.145	.045	.248	.140	.044		
3.0	.266	.141	.042	.260	.139	.042	.250	.136	.041	.241	.132	.040	.232	.128	.040		
4.0	.246	.128	.038	.241	.126	.037	.232	.123	.037	.223	.120	.036	.215	.117	.036		
5.0	.227	.116	.034	.223	.115	.033	.215	.112	.033	.207	.109	.033	.200	.107	.032		
6.0	.211	.106	.030	.207	.105	.030	.200	.103	.030	.193	.100	.030	.187	.098	.029		
7.0	.197	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.170	.086	.025	.165	.084	.025		
9.0	.172	.083	.023	.170	.083	.023	.164	.081	.023	.160	.080	.023	.155	.079	.023		
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.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	.099	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.046	.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	.090	.048	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:28 November 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.889m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm										
NAME: LAB DR_1492_REC_WHT_OPAL_HE_500mA_4000K CRI90TYPE:LED								WEIGHT:		
SPEC.:				DIM.:				SERIAL No.:1		
MFR.: DARKON				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	18.1	19.7	18.4	19.9	20.1	18.0	19.5	18.2	19.7	19.9
3H	19.6	21.0	19.9	21.2	21.5	19.4	20.8	19.7	21.0	21.2
4H	20.2	21.5	20.5	21.7	22.0	20.0	21.3	20.3	21.5	21.8
6H	20.6	21.8	20.9	22.1	22.4	20.4	21.6	20.7	21.9	22.2
8H	20.7	21.9	21.0	22.2	22.4	20.5	21.7	20.8	22.0	22.3
12H	20.7	21.9	21.1	22.2	22.5	20.5	21.7	20.9	22.0	22.3
4H 2H	18.7	20.0	19.0	20.3	20.5	18.6	19.9	18.9	20.1	20.4
3H	20.4	21.5	20.7	21.8	22.1	20.2	21.3	20.5	21.6	21.9
4H	21.0	22.1	21.4	22.4	22.8	20.9	21.9	21.2	22.2	22.6
6H	21.5	22.5	21.9	22.8	23.2	21.4	22.3	21.8	22.7	23.0
8H	21.7	22.6	22.1	22.9	23.3	21.6	22.4	22.0	22.8	23.2
12H	21.8	22.6	22.2	23.0	23.4	21.7	22.5	22.1	22.8	23.3
8H 4H	21.3	22.2	21.7	22.5	22.9	21.1	22.0	21.5	22.4	22.7
6H	21.9	22.6	22.4	23.1	23.5	21.8	22.5	22.2	22.9	23.3
8H	22.2	22.8	22.6	23.2	23.7	22.0	22.7	22.5	23.1	23.5
12H	22.3	22.9	22.8	23.3	23.8	22.2	22.8	22.7	23.2	23.7
12H 4H	21.3	22.1	21.7	22.5	22.9	21.1	21.9	21.5	22.3	22.7
6H	22.0	22.6	22.4	23.0	23.5	21.8	22.5	22.3	22.9	23.4
8H	22.2	22.8	22.7	23.2	23.7	22.1	22.7	22.6	23.1	23.6
Variations with the observer position at spacings:										
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 / - 0.2				

CIE Pub.117 Corrected 2592 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.3)

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: MEDIUM

Temperature:25.3DEG

Operators:JEFF

Test Date:28 November 2024

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295

Humidity:65.0%

Test Distance:7.889m [K=1.0000]

Remarks:

UTILIZATION FACTORS TABLE

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB_DR_1492_REC_WHT_OPAL_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

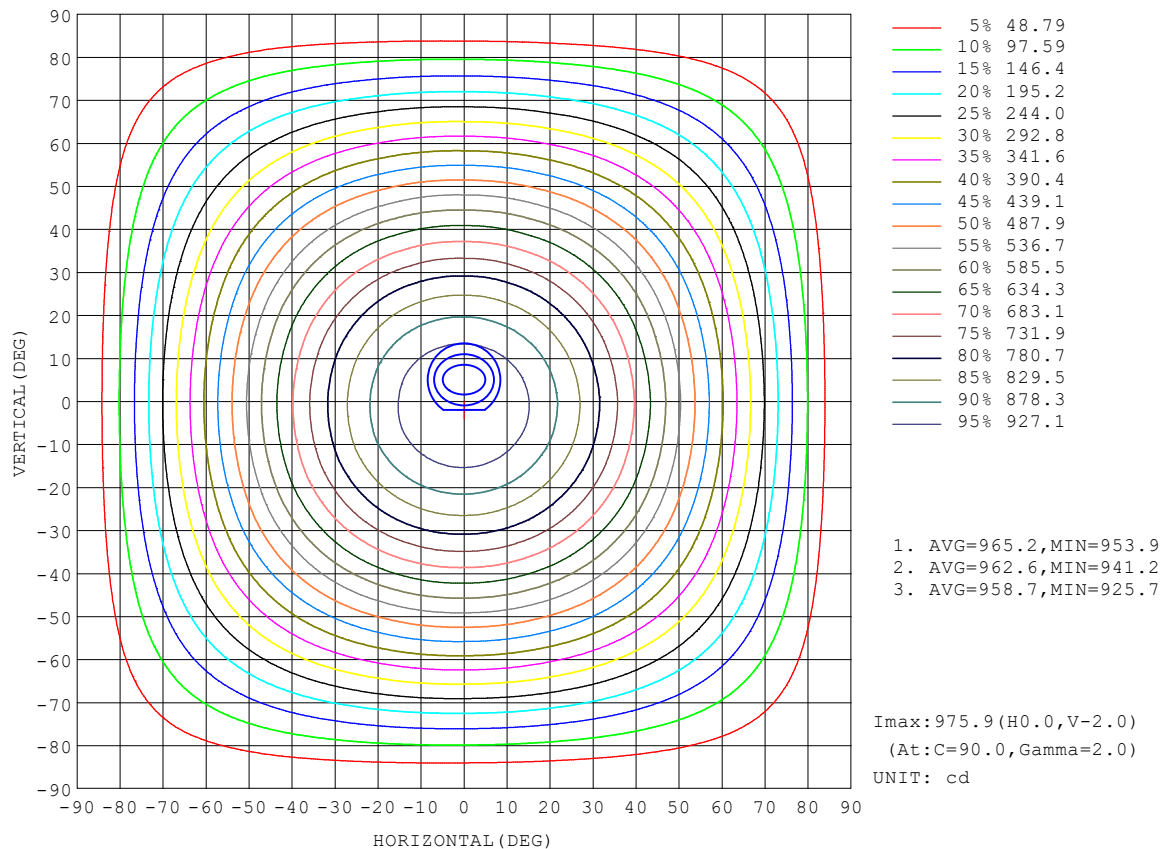
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	58	47	40	57	46	40	33
0.80	68	57	50	67	57	50	66	56	49	42
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	74	66	82	73	66	80	71	65	58
1.50	89	79	72	87	78	72	84	76	71	63
2.00	95	87	81	94	86	80	90	84	79	71
2.50	99	92	86	97	90	85	93	88	83	75
3.00	103	96	90	100	94	89	96	91	87	79
4.00	107	101	96	104	99	95	100	96	92	84
5.00	109	104	100	106	102	99	102	99	96	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: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:28 November 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.889m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB DR_1492_REC_WHT_OPAL_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

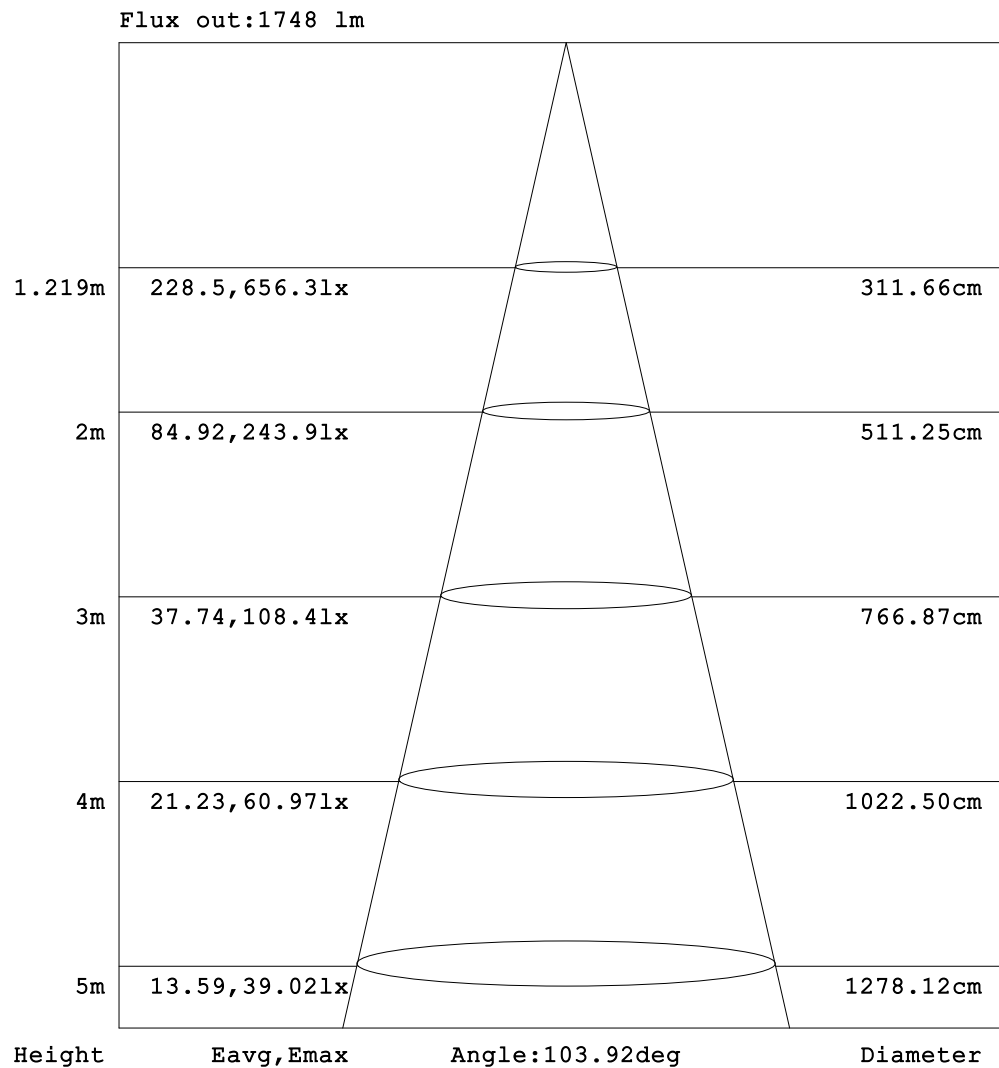


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:28 November 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.889m [K=1.0000]
Remarks:

AAI Figure

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB DR_1492_REC_WHT_OPAL_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



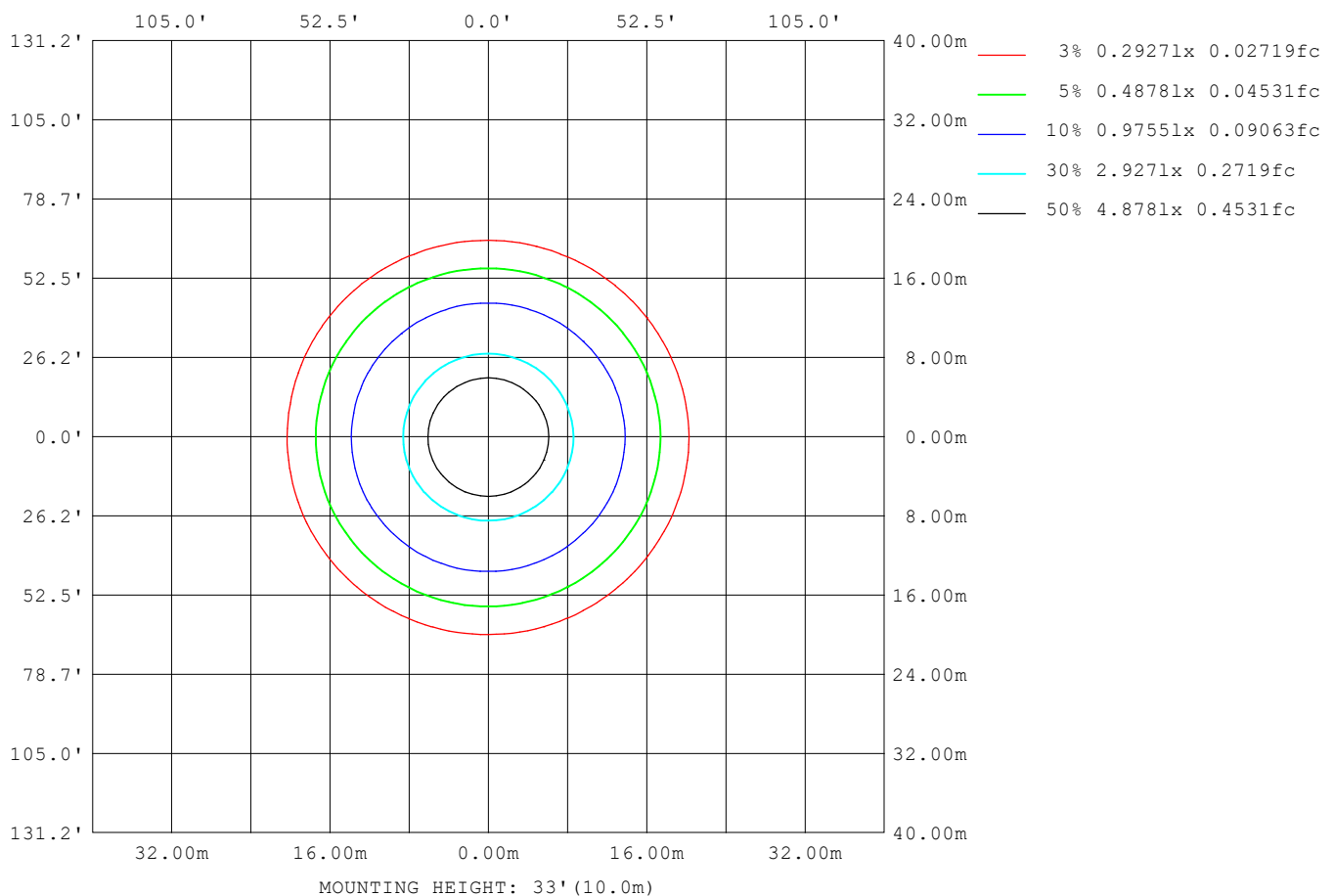
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:28 November 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.889m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB_DR_1492_REC_WHT_OPAL_HE_500mA_4000K_CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:28 November 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.889m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:239.9V I:0.1151A P:25.66W PF:0.9291 Lamp Flux:2592.22x1 lm		
NAME: LAB DR_1492_REC_WHT_OPAL_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

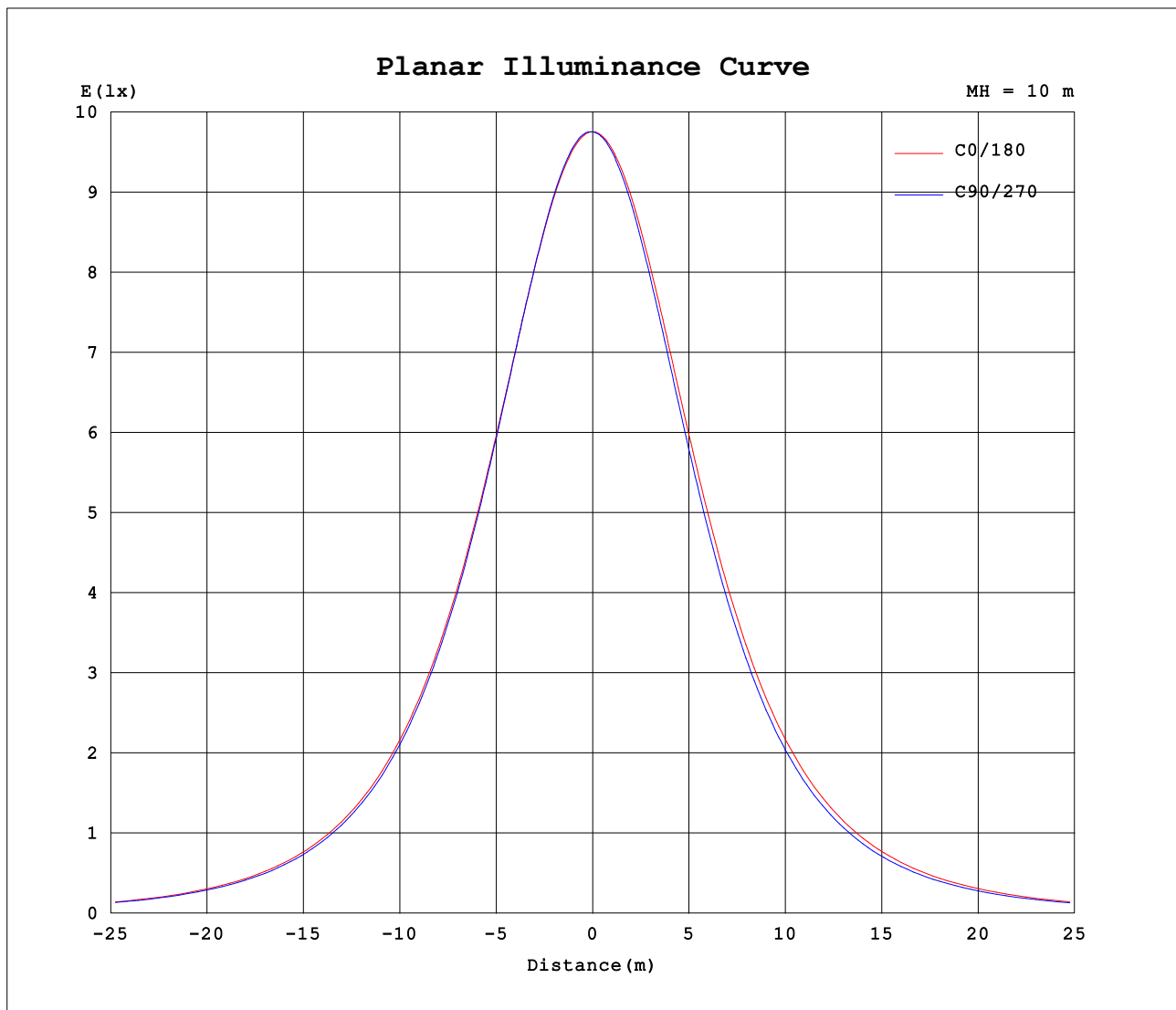
AvgL	cd/m2
L_0~180 (65) av	4273
L_0~180 (75) av	3665
L_0~180 (85) av	2516
L_90~270 (65) av	3980
L_90~270 (75) av	3439
L_90~270 (85) av	2395
L_45 (65) av	4108
L_45 (75) av	3545
L_45 (85) av	2549

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:28 November 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.889m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: JEFF
Test Date: 28 November 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.889m [K=1.0000]
Remarks:

