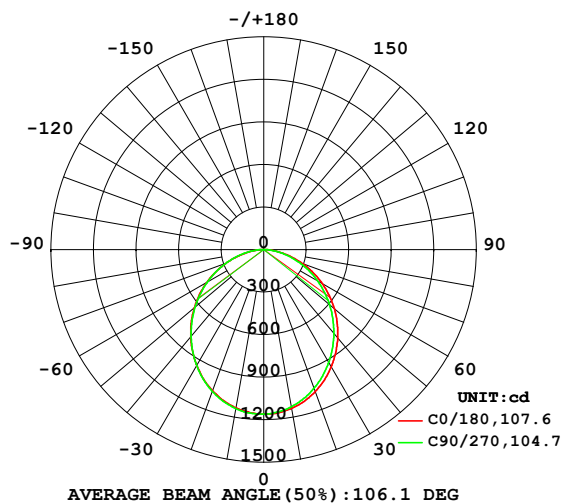


LUMINAIRE PHOTOMETRIC TEST REPORT

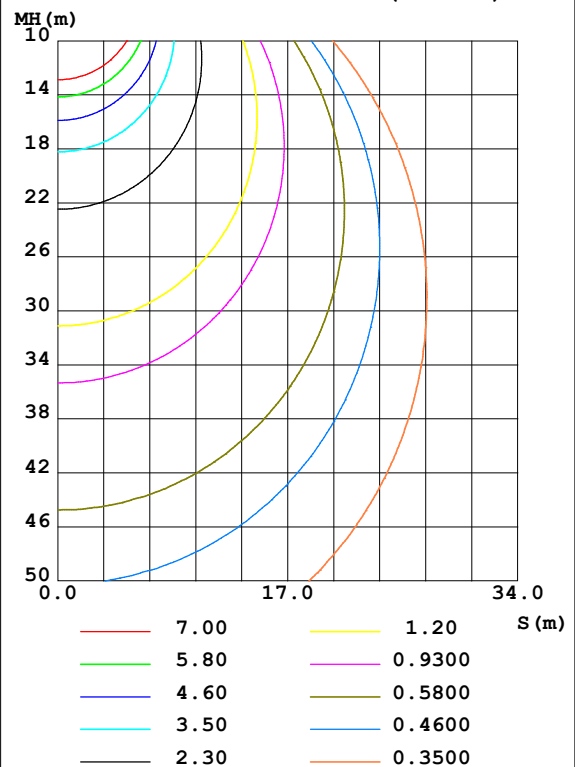
Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB DR_1570_REC_WHT_OPAL_HO_350mA_4000K CRI90TYPE:LED		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.49 lm/W			
LLE 20000mm	1250lm 940 HV ADV5	Imax(cd)	1163	S/MH(C0/180)	1.22
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)		TOTAL FLUX(lm)	3097.2	η UP,DN(C0-180)	0.0,49.4
NOMINAL FLUX(lm)		CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.6
LAMPS INSIDE		η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)		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:20 August 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [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	1155	1150	1149	1155	1154	1160	1157	1154	0- 5	27.68	27.68	0.89,0.89
10	1137	1125	1125	1134	1133	1145	1139	1135	5- 10	81.86	109.5	3.54,3.54
15	1107	1088	1088	1101	1101	1115	1108	1100	10- 15	132.6	242.1	7.82,7.82
20	1065	1040	1041	1058	1058	1075	1064	1056	15- 20	177.9	420.0	13.6,13.6
25	1014	983.4	983.3	1004	1006	1024	1009	1001	20- 25	216.1	636.1	20.5,20.5
30	954.3	918.5	917.6	941.6	944.5	963.1	945.5	937.4	25- 30	245.9	882.0	28.5,28.5
35	886.0	847.3	846.6	872.6	876.5	894.9	874.7	866.9	30- 35	266.6	1149	37.1,37.1
40	812.8	771.0	770.0	798.2	802.5	819.9	797.9	790.8	35- 40	277.9	1427	46.1,46.1
45	733.4	690.8	690.5	719.5	723.3	741.1	717.1	709.8	40- 45	279.7	1706	55.1,55.1
50	650.9	607.4	607.5	637.4	640.2	658.1	634.0	625.6	45- 50	272.3	1979	63.9,63.9
55	564.7	521.2	522.6	551.9	554.0	571.7	546.8	538.7	50- 55	256.2	2235	72.2,72.2
60	475.4	433.6	436.3	465.2	465.3	484.0	459.3	449.9	55- 60	232.2	2467	79.6,79.6
65	384.7	345.9	351.2	377.7	375.6	394.5	372.1	360.4	60- 65	201.4	2668	86.2,86.2
70	293.4	259.4	267.1	290.4	284.3	305.2	285.5	272.1	65- 70	165.0	2833	91.5,91.5
75	203.9	175.7	185.4	205.5	195.4	218.4	201.5	186.8	70- 75	124.8	2958	95.5,95.5
80	119.9	99.06	109.7	125.9	112.6	136.4	123.4	108.1	75- 80	83.42	3042	98.2,98.2
85	48.46	33.30	42.27	55.81	43.71	64.06	53.33	40.27	80- 85	44.09	3086	99.6,99.6
90	2.091	0.8867	0.8605	3.929	0.8167	7.734	2.625	0.7659	85- 90	11.64	3097	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): 1706.3 lm

%lum = 55.1%

%lamp = 55.1%

Conical surface Flux(120deg): 2466.9 lm

%lum = 79.6%

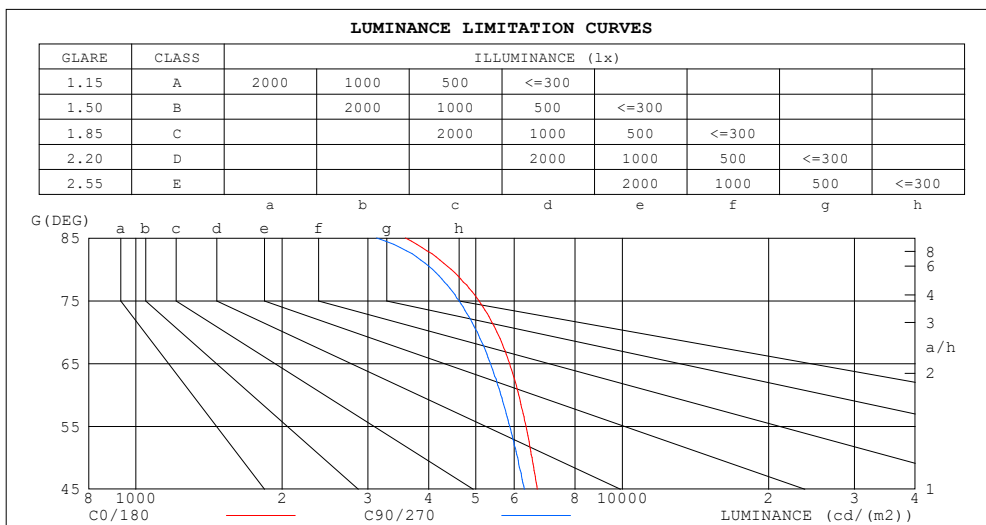
%lamp = 79.6%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:JEFF
 Test Date:20 August 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:7.888m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB DR_1570_REC_WHT_OPAL_HO_350mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3584	3127
80	4450	4073
75	5078	4618
70	5529	5034
65	5868	5358
60	6129	5626
55	6346	5874
50	6528	6093
45	6686	6296

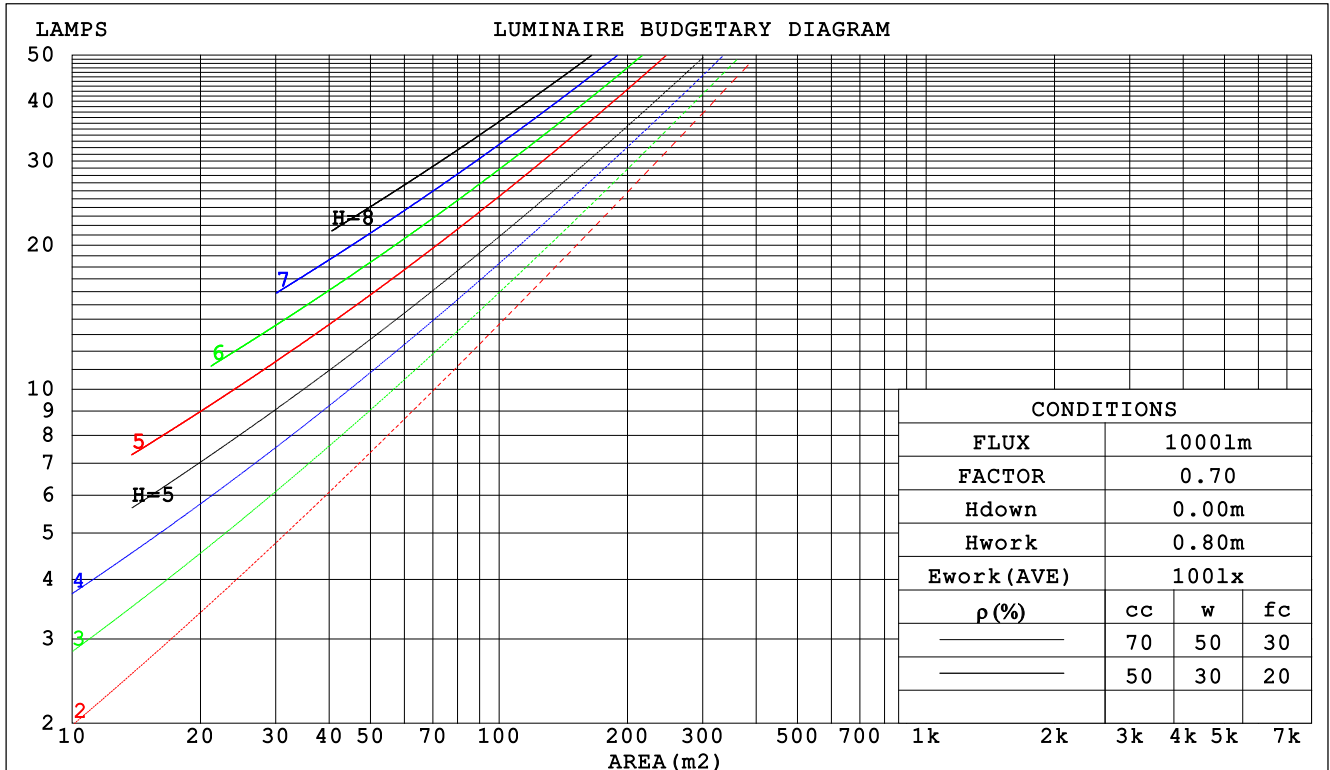
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:20 August 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB_DR_1570_REC_WHT_OPAL_HO_350mA_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	.94	.98	.94	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.76	.82	.78	.74	.79	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.70	.61	.55	.67	.60	.54	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.54	.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	.37	.33	.43	.37	.32	.30
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
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:20 August 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB_DR_1570_REC_WHT_OPAL_HO_350mA_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	.305	.173	.055	.298	.170	.054	.285	.163	.052	.273	.157	.050	.261	.151	.049		
2.0	.287	.158	.048	.281	.155	.048	.270	.150	.047	.259	.145	.045	.249	.141	.044		
3.0	.266	.142	.042	.261	.140	.042	.251	.136	.041	.241	.132	.041	.232	.129	.040		
4.0	.246	.128	.038	.241	.126	.037	.232	.123	.037	.224	.120	.036	.216	.117	.036		
5.0	.228	.116	.034	.223	.115	.033	.215	.112	.033	.208	.110	.033	.201	.107	.032		
6.0	.211	.106	.030	.208	.105	.030	.200	.103	.030	.194	.101	.030	.187	.099	.029		
7.0	.197	.097	.028	.193	.096	.027	.187	.095	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025		
9.0	.173	.083	.023	.170	.083	.023	.165	.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	.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	.090	.048	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.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	.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	.117	.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:20 August 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm											
NAME: LAB_DR_1570_REC_WHT_OPAL_HO_350mA_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		19.1	20.6	19.4	20.8	21.0	18.7	20.2	19.0	20.4	20.6
	3H	20.6	22.0	20.9	22.2	22.4	20.2	21.5	20.5	21.8	22.0
	4H	21.2	22.5	21.5	22.7	23.0	20.7	22.0	21.0	22.3	22.5
	6H	21.6	22.8	21.9	23.1	23.4	21.1	22.4	21.4	22.6	22.9
	8H	21.7	22.9	22.0	23.2	23.5	21.2	22.4	21.6	22.7	23.0
	12H	21.7	22.9	22.1	23.2	23.5	21.3	22.4	21.6	22.7	23.0
4H	2H	19.6	20.9	19.9	21.2	21.4	19.3	20.6	19.6	20.9	21.1
	3H	21.2	22.4	21.6	22.7	23.0	20.9	22.1	21.3	22.4	22.7
	4H	21.9	23.0	22.3	23.3	23.7	21.6	22.6	22.0	23.0	23.3
	6H	22.5	23.4	22.9	23.8	24.1	22.1	23.0	22.5	23.4	23.7
	8H	22.6	23.5	23.1	23.9	24.3	22.2	23.1	22.7	23.5	23.9
	12H	22.7	23.5	23.2	23.9	24.3	22.3	23.1	22.8	23.5	23.9
8H	4H	22.1	23.0	22.6	23.4	23.8	21.8	22.7	22.2	23.0	23.4
	6H	22.8	23.5	23.2	23.9	24.3	22.4	23.2	22.9	23.6	24.0
	8H	23.0	23.7	23.5	24.1	24.5	22.7	23.3	23.1	23.7	24.2
	12H	23.2	23.7	23.7	24.2	24.7	22.8	23.4	23.3	23.8	24.3
12H	4H	22.1	22.9	22.6	23.3	23.7	21.8	22.6	22.2	23.0	23.4
	6H	22.8	23.5	23.3	23.9	24.3	22.5	23.1	22.9	23.5	24.0
	8H	23.1	23.6	23.6	24.1	24.6	22.7	23.3	23.2	23.7	24.2
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.1 / - 0.2					+ 0.1 / - 0.3					
2.0H	+ 0.3 / - 0.3					+ 0.2 / - 0.2					

CIE Pub.117 Corrected 3097 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.9)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:20 August 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB_DR_1570_REC_WHT_OPAL_HO_350mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

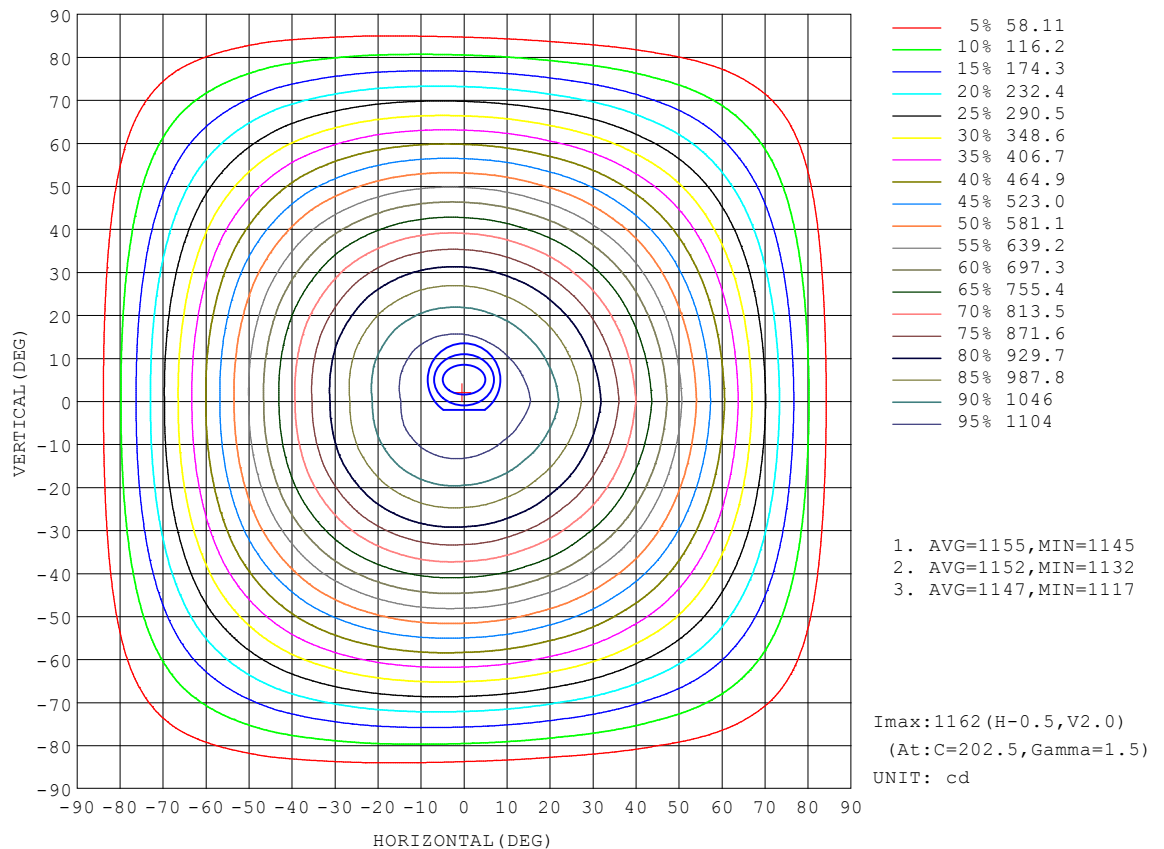
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	58	47	40	56	46	40	33
0.80	68	57	50	67	56	49	66	56	49	42
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	73	66	82	73	66	80	71	65	58
1.50	89	79	72	87	78	72	84	76	70	63
2.00	95	87	81	94	86	80	90	84	78	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	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: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:20 August 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB DR_1570_REC_WHT_OPAL_HO_350mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

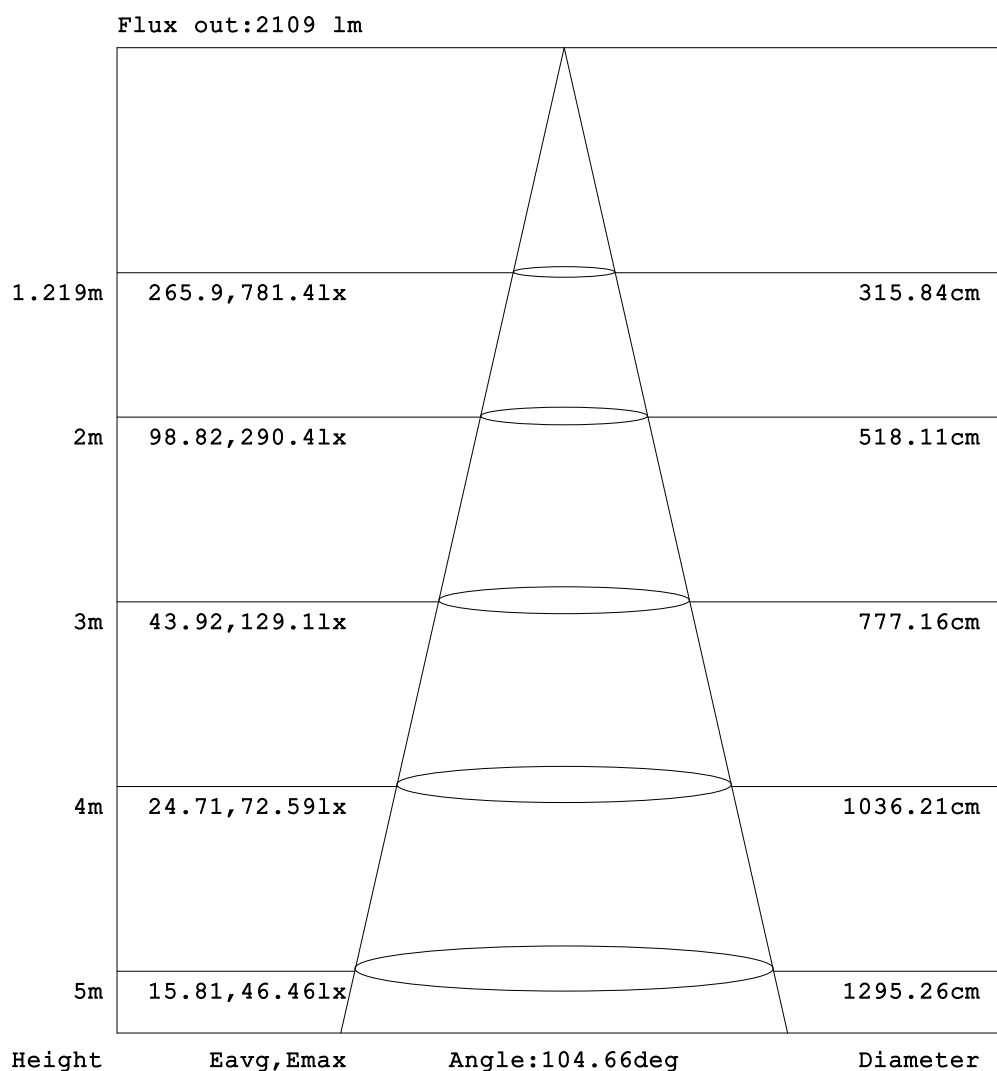


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:20 August 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB DR_1570_REC_WHT_OPAL_HO_350mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



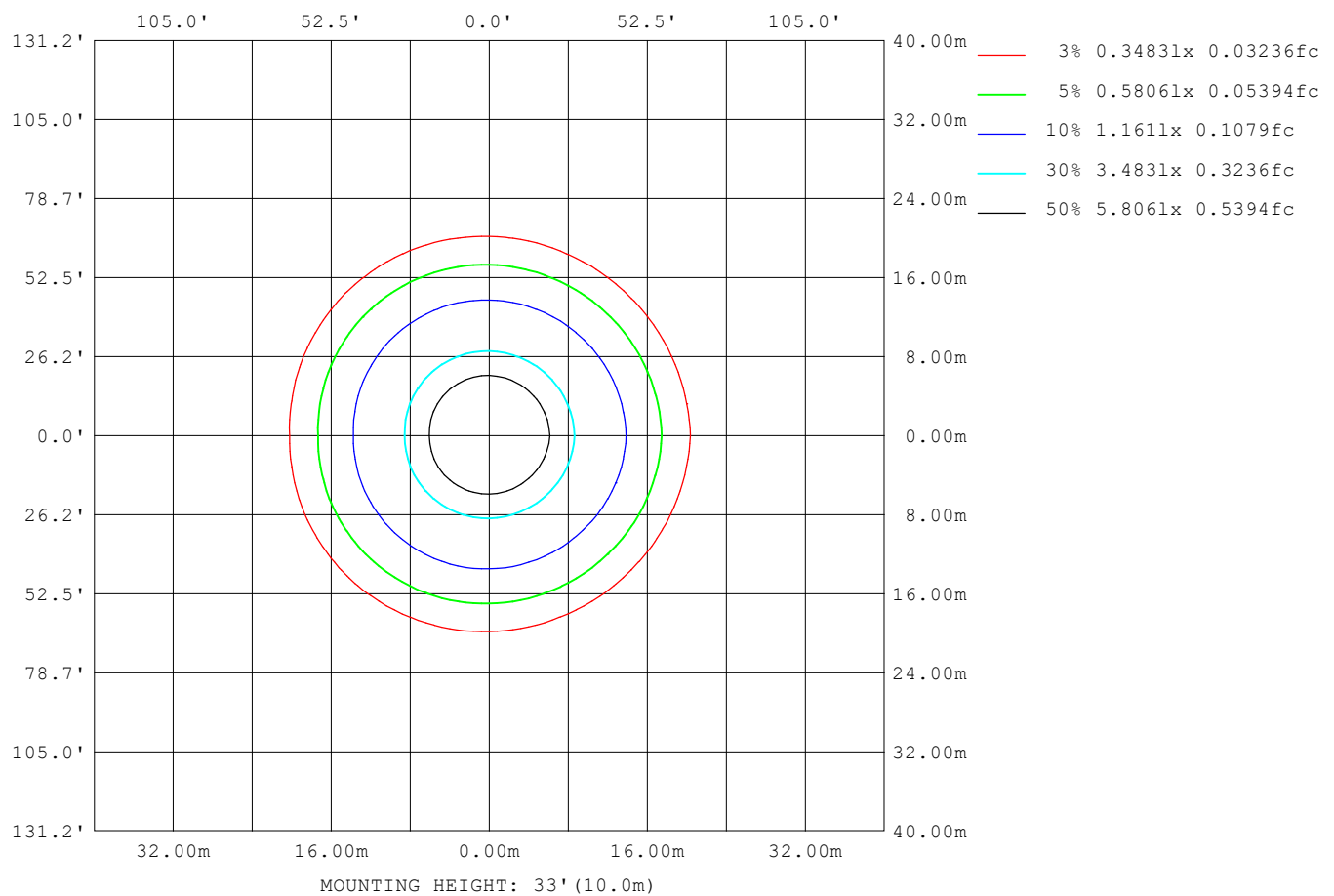
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:20 August 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB_DR_1570_REC_WHT_OPAL_HO_350mA_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:20 August 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:7.888m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:240.1V I:0.1350A P:30.22W PF:0.9326 Lamp Flux:3097.23x1 lm		
NAME: LAB DR_1570_REC_WHT_OPAL_HO_350mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

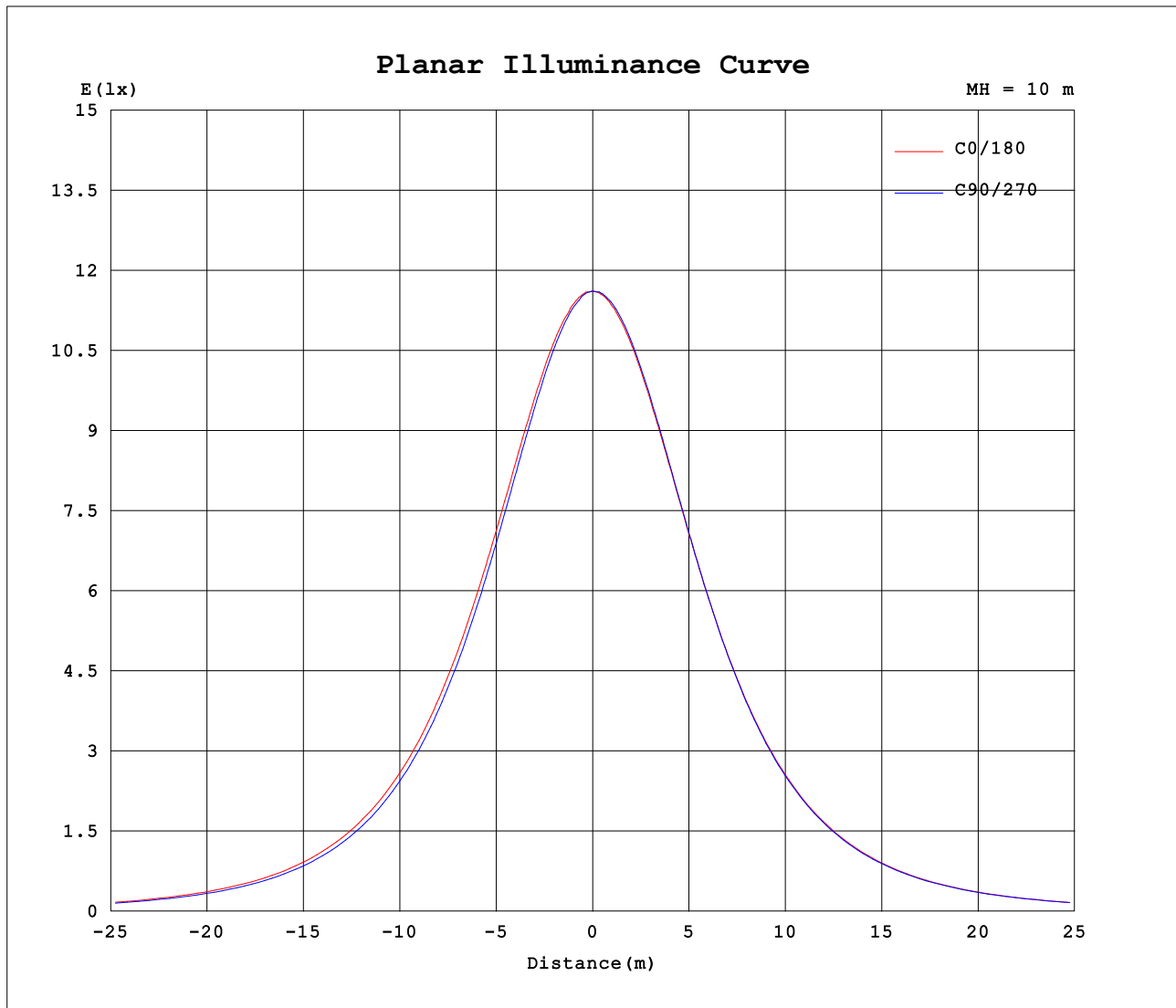
AvgL	cd/m2
L_0~180 (65) av	5796
L_0~180 (75) av	4970
L_0~180 (85) av	3407
L_90~270 (65) av	5514
L_90~270 (75) av	4816
L_90~270 (85) av	3534
L_45 (65) av	5635
L_45 (75) av	4895
L_45 (85) av	3575

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:20 August 2024

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [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: 20 August 2024

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.888m [K=1.0000]
Remarks:

