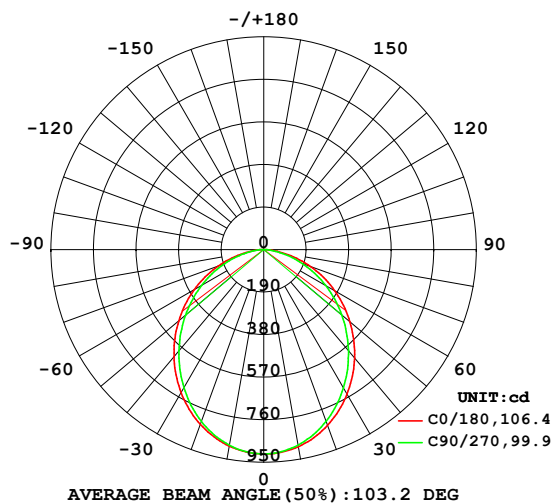


LUMINAIRE PHOTOMETRIC TEST REPORT

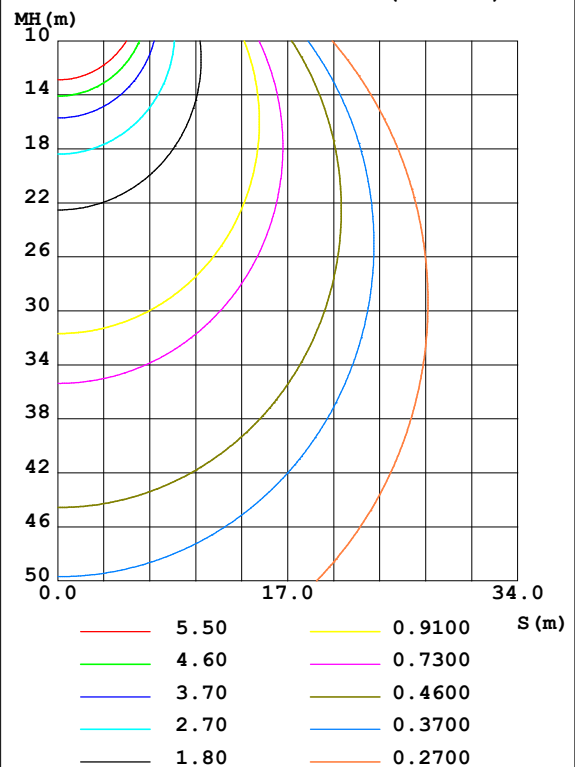
Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K TYPE:90DEG		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 90.99 lm/W			
MODEL: LLE 20000mm	1300lm 940 HV ADV6	Imax(cd)	913.0	S/MH(C0/180)	1.21
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.17
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2333.9	η UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	2333.92	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.1
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: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:16 February 2024

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.890m [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	893.7	889.5	886.4	886.6	890.9	888.8	887.1	891.6	0- 10	86.00	86.00	3.68,3.68
20	835.3	824.3	815.7	819.2	830.3	822.6	816.3	827.9	10- 20	242.7	328.7	14.1,14.1
30	744.9	726.7	712.3	720.4	738.3	724.5	712.7	731.1	20- 30	358.4	687.1	29.4,29.4
40	631.3	607.8	589.1	601.3	624.1	605.5	589.4	612.5	30- 40	418.2	1105	47.4,47.4
50	503.1	477.0	455.7	471.0	495.9	475.1	456.6	481.4	40- 50	418.9	1524	65.3,65.3
60	365.9	339.6	319.0	334.7	359.2	339.1	321.4	344.1	50- 60	365.4	1890	81,81
70	223.3	200.1	184.2	196.8	217.7	201.1	188.1	205.0	60- 70	268.0	2158	92.4,92.4
80	85.54	72.69	64.94	70.93	81.02	74.37	68.52	76.48	70- 80	143.5	2301	98.6,98.6
90	1.242	0.5566	0.4947	0.5691	0.6523	0.6408	0.6890	0.7307	80- 90	32.86	2334	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		

Conical surface Flux(90deg): 1318.2 lm

%lum = 56.5%

%lamp = 56.5%

Conical surface Flux(120deg): 1889.6 lm

%lum = 81.0%

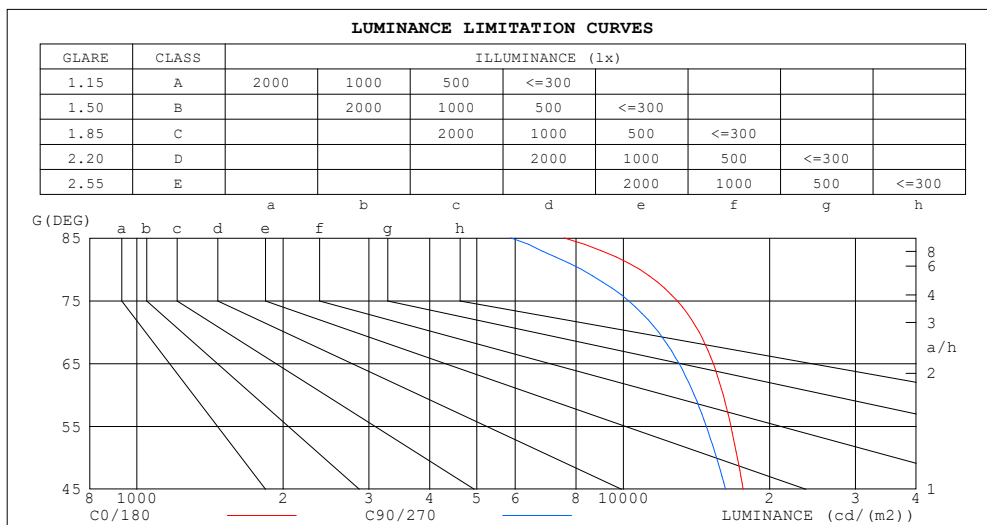
%lamp = 81.0%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JEFF
 Test Date:16 February 2024

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:7.890m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



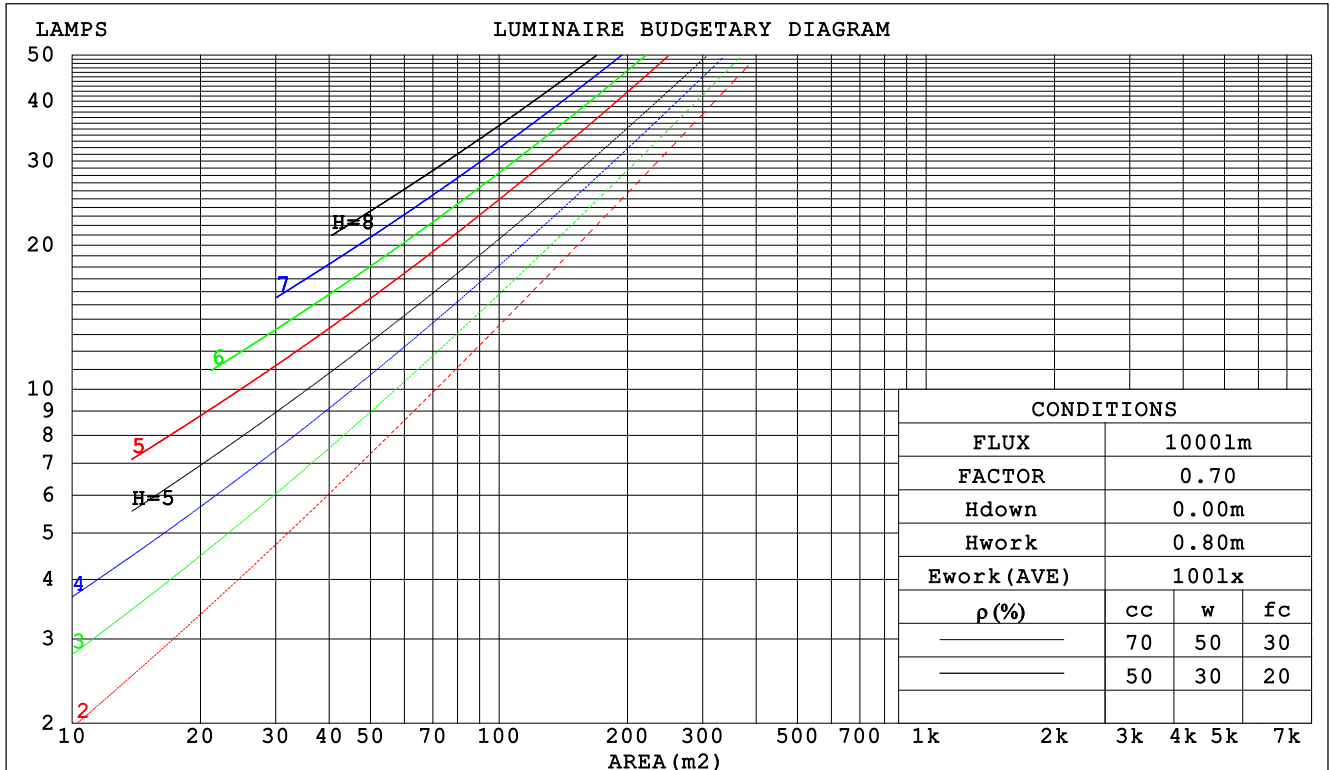
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 16 February 2024

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.890m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI90		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	1.05	1.00	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.89	.91	.89	.87	.85
2.0	.92	.85	.79	.90	.84	.78	.86	.81	.77	.83	.79	.75	.80	.76	.73	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.65	.73	.68	.63	.71	.66	.62	.60
4.0	.72	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.55	.63	.58	.54	.52
5.0	.64	.55	.49	.63	.55	.49	.61	.54	.48	.59	.53	.47	.57	.51	.47	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.42	.53	.47	.42	.52	.46	.41	.39
7.0	.53	.44	.38	.52	.44	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.40	.34	.47	.39	.34	.46	.39	.34	.45	.38	.33	.44	.38	.33	.31
9.0	.44	.36	.31	.44	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.37	.32	.27	.26



C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:JEFF

Test Date:16 February 2024

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

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

Humidity:65.0%

Test Distance:7.890m [K=1.0000]

Remarks:

WEC AND CCEC

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI90	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	.297	.169	.053	.290	.165	.052	.276	.159	.051	.264	.152	.049	.253	.147	.047		
2.0	.281	.154	.047	.275	.152	.047	.264	.147	.046	.253	.142	.044	.243	.137	.043		
3.0	.262	.139	.042	.256	.137	.041	.246	.133	.041	.237	.130	.040	.228	.126	.039		
4.0	.243	.126	.037	.238	.124	.037	.229	.121	.036	.220	.118	.036	.212	.115	.035		
5.0	.225	.115	.033	.221	.113	.033	.213	.111	.033	.205	.108	.032	.198	.106	.032		
6.0	.209	.105	.030	.205	.104	.030	.198	.102	.030	.191	.099	.029	.185	.097	.029		
7.0	.195	.096	.027	.192	.095	.027	.185	.094	.027	.179	.092	.027	.174	.090	.027		
8.0	.182	.089	.025	.179	.088	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024		
9.0	.171	.083	.023	.168	.082	.023	.163	.081	.023	.158	.079	.023	.154	.078	.023		
10.0	.161	.077	.021	.159	.077	.021	.154	.075	.021	.150	.074	.021	.146	.073	.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	.179	.156	.135	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.052	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.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	.026	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:16 February 2024

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.890m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm											
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI 90							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	2H	22.6	24.1	22.9	24.3	24.5	22.1	23.6	22.3	23.8	24.0
	3H	24.1	25.5	24.4	25.7	25.9	23.4	24.7	23.6	25.0	25.2
	4H	24.6	26.0	25.0	26.2	26.5	23.8	25.1	24.1	25.4	25.6
	6H	25.0	26.2	25.3	26.5	26.8	24.1	25.3	24.4	25.6	25.9
	8H	25.1	26.3	25.4	26.6	26.9	24.1	25.3	24.5	25.6	25.9
	12H	25.1	26.3	25.5	26.6	26.9	24.1	25.3	24.5	25.6	25.9
4H	2H	23.1	24.4	23.4	24.7	24.9	22.7	24.0	23.0	24.2	24.5
	3H	24.8	25.9	25.1	26.2	26.5	24.1	25.3	24.5	25.6	25.9
	4H	25.4	26.5	25.8	26.8	27.1	24.7	25.7	25.1	26.1	26.4
	6H	25.9	26.8	26.3	27.2	27.6	25.1	26.0	25.5	26.3	26.7
	8H	26.1	26.9	26.5	27.3	27.7	25.2	26.0	25.6	26.4	26.8
	12H	26.1	26.9	26.6	27.3	27.7	25.2	26.0	25.6	26.4	26.8
8H	4H	25.6	26.5	26.0	26.8	27.2	25.0	25.8	25.4	26.2	26.6
	6H	26.2	26.9	26.7	27.3	27.8	25.4	26.1	25.9	26.6	27.0
	8H	26.4	27.0	26.9	27.5	27.9	25.6	26.2	26.0	26.6	27.1
	12H	26.5	27.1	27.0	27.5	28.0	25.7	26.2	26.2	26.7	27.1
12H	4H	25.6	26.4	26.0	26.8	27.2	25.0	25.7	25.4	26.1	26.5
	6H	26.2	26.9	26.7	27.3	27.7	25.5	26.1	25.9	26.5	27.0
	8H	26.5	27.0	26.9	27.4	27.9	25.7	26.2	26.1	26.6	27.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.3 / - 0.3					+ 0.2 / - 0.3					

CIE Pub.117 Corrected 2334 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.9)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:16 February 2024

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.890m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

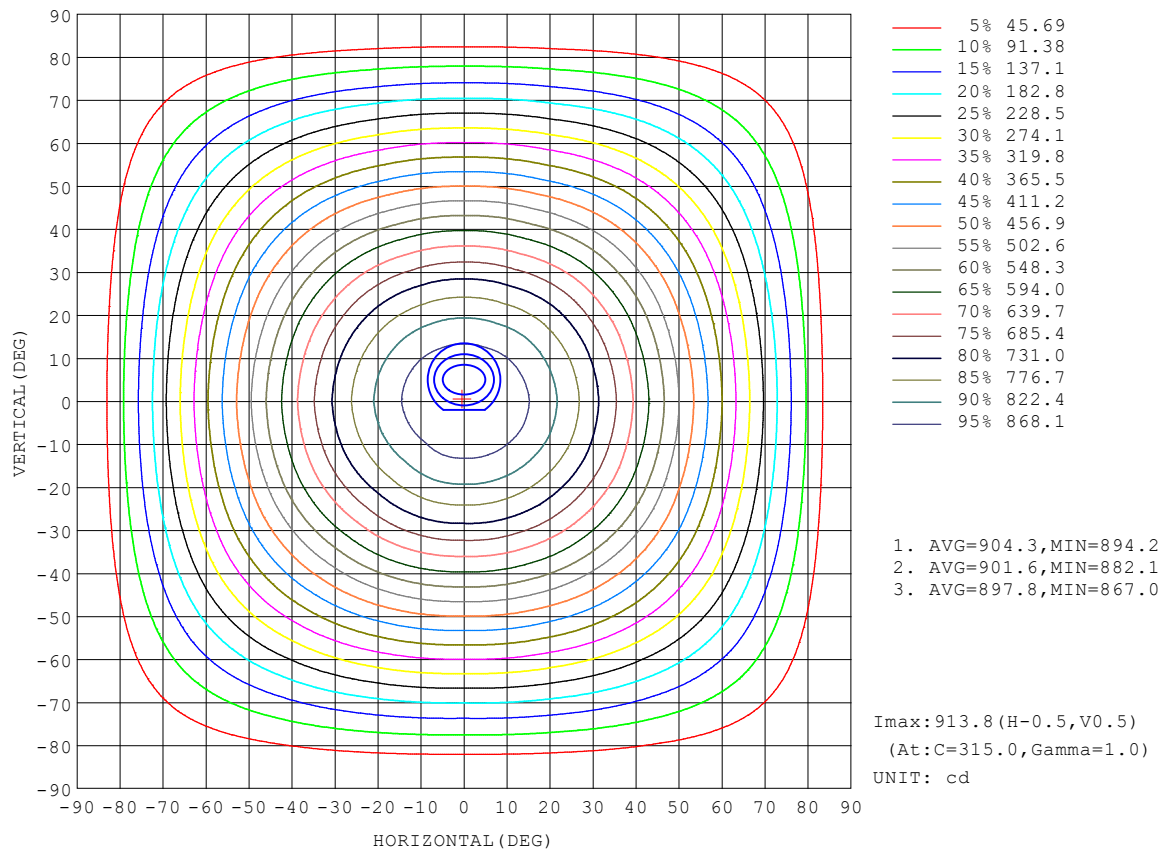
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	58	48	41	57	47	41	34
0.80	69	58	51	68	57	50	66	57	50	43
1.00	77	67	60	76	66	59	74	67	59	52
1.25	84	74	67	83	74	67	80	72	66	59
1.50	89	80	73	88	79	73	85	77	72	64
2.00	96	88	82	94	87	81	91	84	79	72
2.50	100	92	87	98	91	86	94	88	84	76
3.00	103	96	91	101	95	90	97	92	88	80
4.00	107	101	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
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:25.3DEG
Operators:JEFF
Test Date:16 February 2024

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.890m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

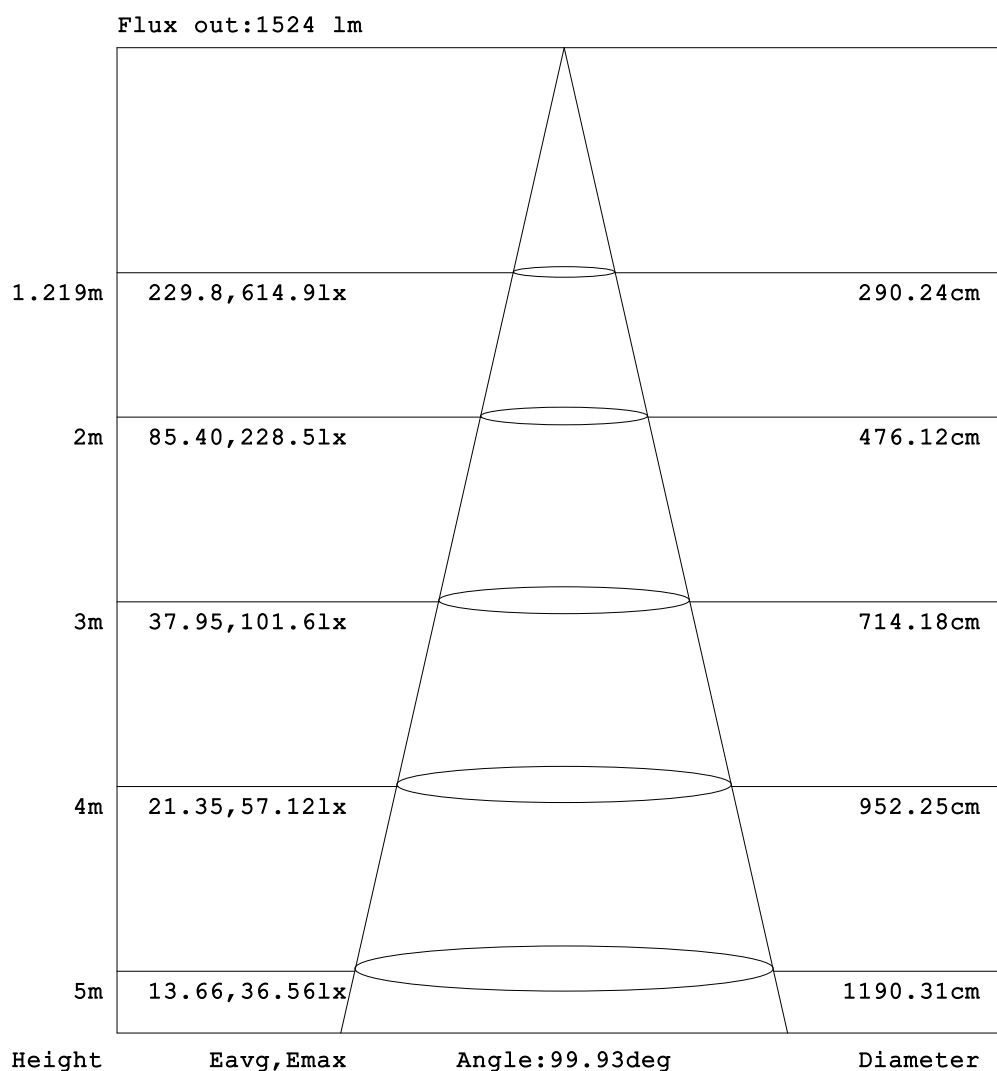


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:16 February 2024

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.890m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



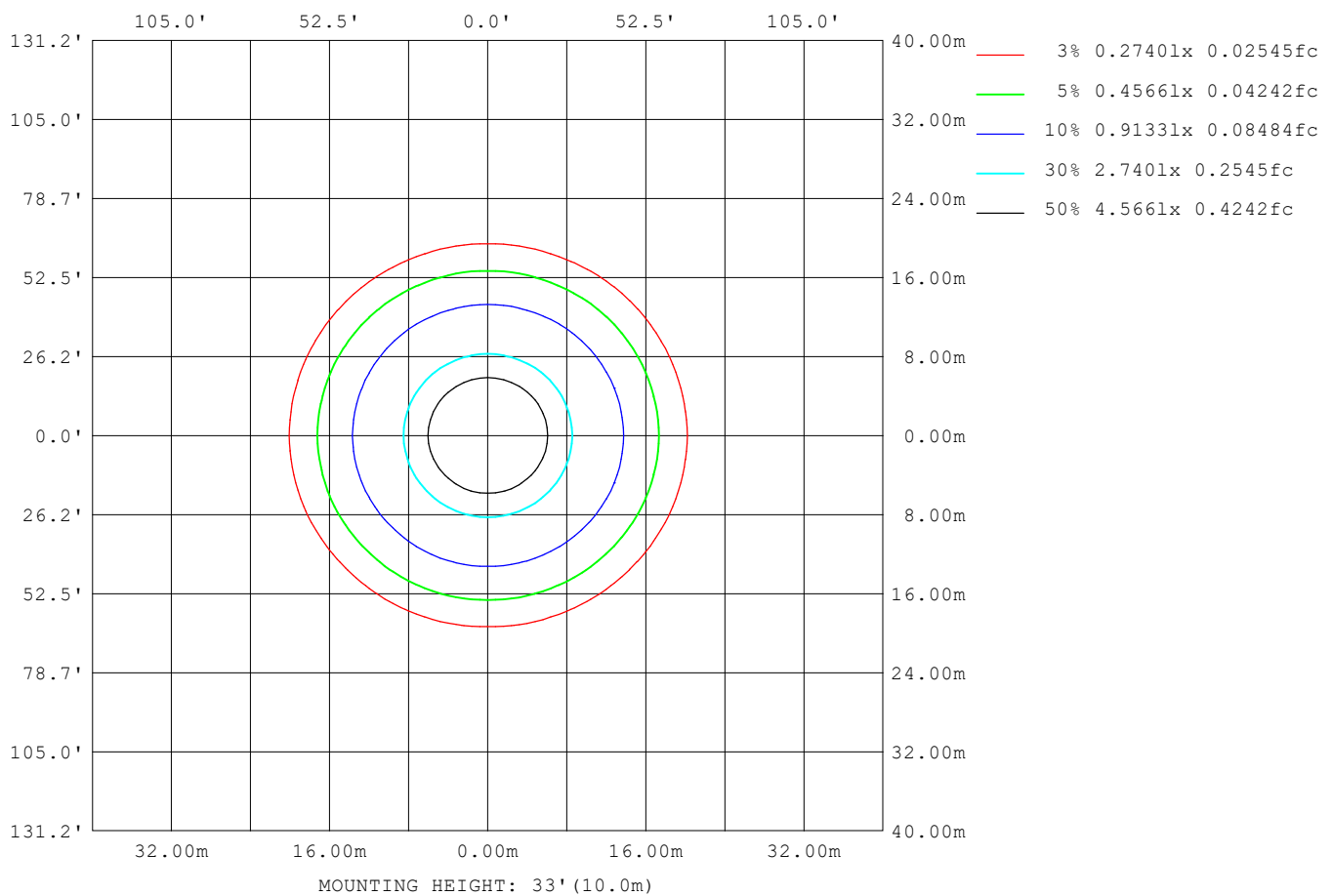
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:16 February 2024

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.890m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:16 February 2024

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.890m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:240.0V I:0.1150A P:25.65W PF:0.9289 Lamp Flux:2333.92x1 lm		
NAME: SLIM H DIRECT_1160_NA_WHT_OPAL_HE_500mA_4000K CRI90		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

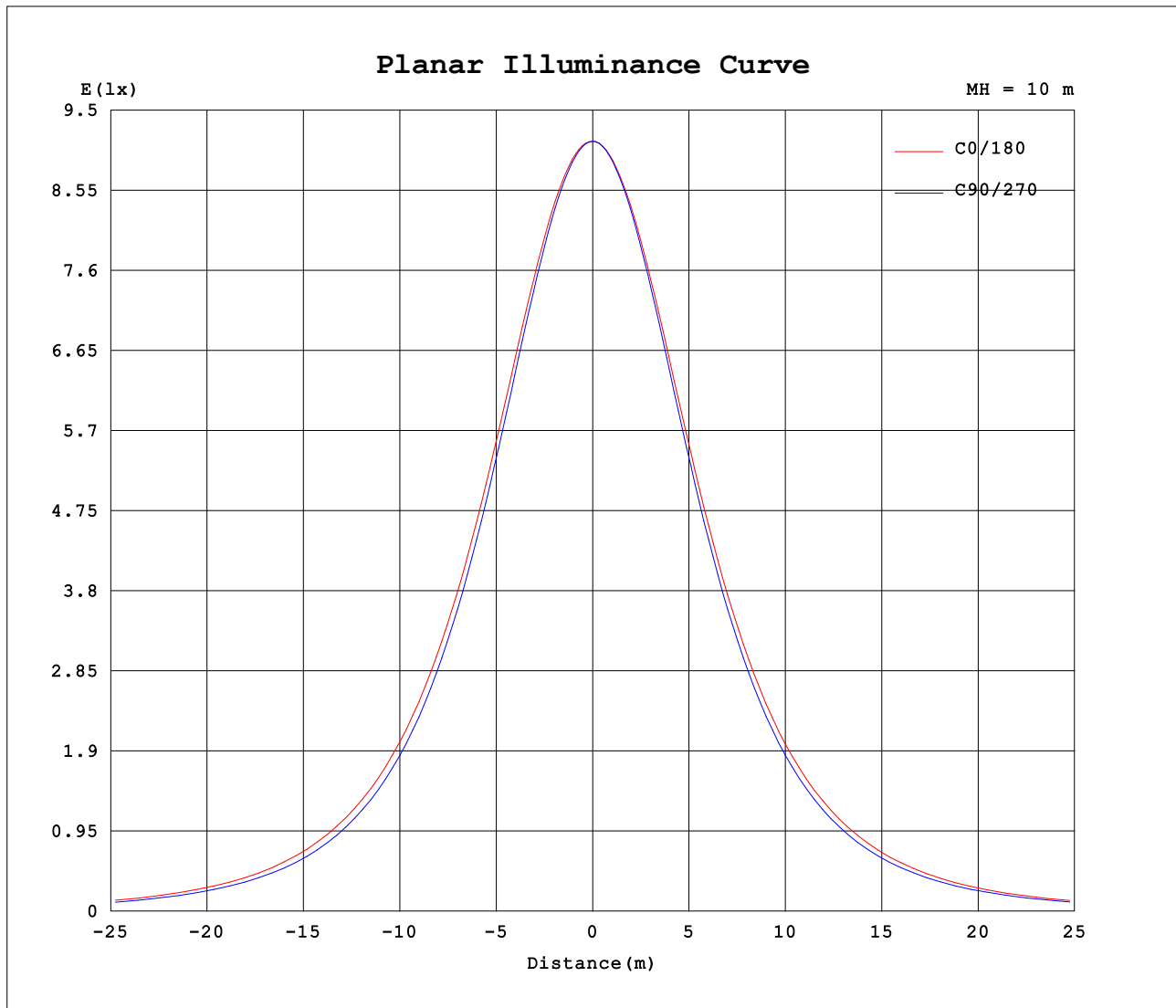
AvgL	cd/m2
L_0~180 (65) av	15142
L_0~180 (75) av	12686
L_0~180 (85) av	7151
L_90~270 (65) av	13101
L_90~270 (75) av	10416
L_90~270 (85) av	6174
L_45 (65) av	14000
L_45 (75) av	11358
L_45 (85) av	6696

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:16 February 2024

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.890m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 16 February 2024

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.890m [K=1.0000]
Remarks:

