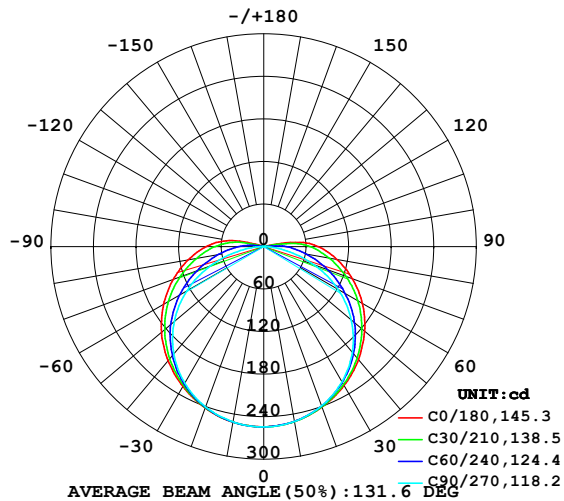


LUMINAIRE PHOTOMETRIC TEST REPORT

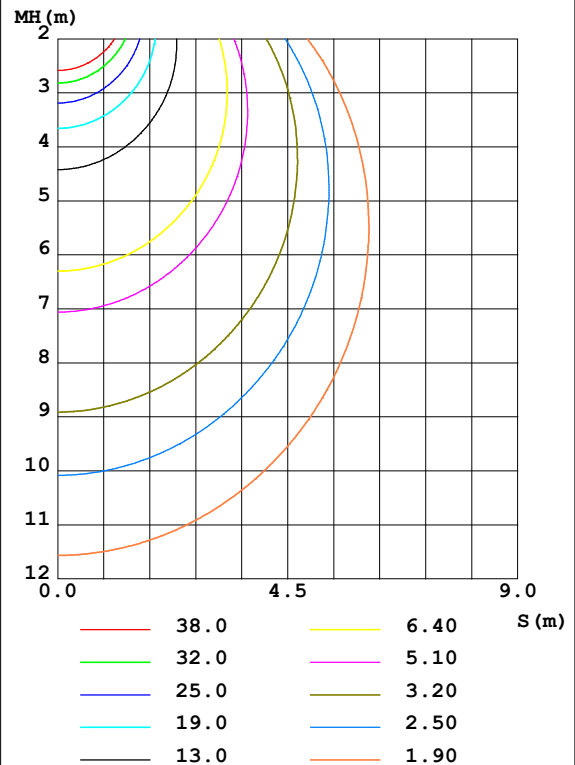
Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz		
Lamp Flux:958.809x1 lm		
Name: S005528ZC1LZ		
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 106.53 lm/W			
MODEL		I _{max} (cd)	254.8	S/MH (C0/180)	1.34
NOMINAL POWER (W)	9	LOR (%)	100.0	S/MH (C90/270)	1.30
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	958.81	η UP, DN (C0-180)	2.2, 47.1
NOMINAL FLUX (lm)	958.809	CIE CLASS	DIRECT	η UP, DN (C180-360)	2.7, 48.0
LAMPS INSIDE	1	η up (%)	4.9	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	24	η down (%)	95.1	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-01-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7125]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	250.5	250.4	250.4	250.8	251.4	251.2	251.0	251.5	0- 10	24.12	24.12	2.52, 2.52
20	240.9	239.9	239.1	240.3	242.3	241.5	240.5	241.7	10- 20	69.70	93.82	9.78, 9.78
30	226.5	223.2	220.5	223.3	228.0	225.3	222.7	225.3	20- 30	107.6	201.5	21, 21
40	208.0	201.1	194.6	200.8	210.1	203.5	197.4	203.3	30- 40	134.0	335.4	35, 35
50	185.8	174.0	161.3	173.2	188.3	177.0	164.9	175.7	40- 50	146.1	481.5	50.2, 50.2
60	160.7	143.0	121.2	141.8	163.2	146.1	125.5	144.1	50- 60	142.8	624.3	65.1, 65.1
70	133.4	110.1	75.71	108.4	135.9	113.2	80.37	111.5	60- 70	125.2	749.6	78.2, 78.2
80	104.8	77.14	29.67	75.28	108.1	80.49	33.74	78.76	70- 80	97.12	846.7	88.3, 88.3
90	77.05	48.82	1.076	47.78	81.25	52.06	2.332	48.73	80- 90	64.90	911.6	95.1, 95.1
100	31.50	9.753	0.7560	15.86	49.82	19.95	1.193	14.03	90-100	35.98	947.6	98.8, 98.8
110	1.167	0.7585	0.6986	0.9666	3.940	1.629	1.127	1.570	100-110	6.870	954.4	99.5, 99.5
120	0.8122	0.6371	0.6108	0.7516	1.394	1.376	1.124	1.403	110-120	1.121	955.6	99.7, 99.7
130	0.7668	0.6125	0.5658	0.7272	1.264	1.308	1.141	1.324	120-130	0.8877	956.5	99.8, 99.8
140	0.8318	0.6742	0.6309	0.7685	1.299	1.306	1.156	1.277	130-140	0.7590	957.2	99.8, 99.8
150	0.8870	0.8011	0.8437	0.8845	1.440	1.317	1.165	1.282	140-150	0.6541	957.9	99.9, 99.9
160	0.9388	0.8887	0.9338	1.032	1.406	1.219	1.176	1.283	150-160	0.5041	958.4	100, 100
170	1.021	1.001	1.026	1.198	1.380	1.161	1.173	1.276	160-170	0.3209	958.7	100, 100
180	1.096	1.111	1.109	1.342	1.095	1.099	1.135	1.245	170-180	0.1118	958.8	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 407.93 lm

%lum = 42.5%

%lamp = 42.5%

Conical surface Flux(120deg): 624.34 lm

%lum = 65.1%

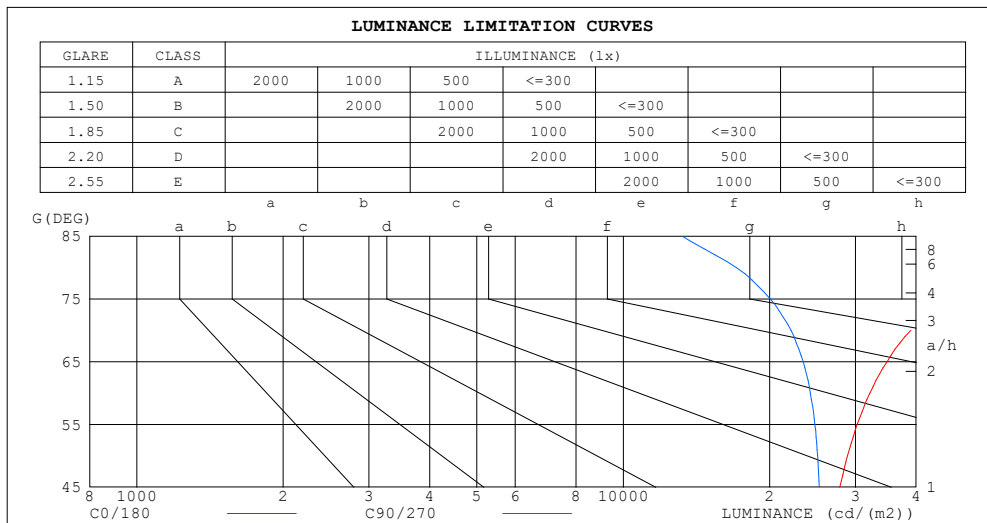
%lamp = 65.1%

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7125]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz		
Lamp Flux:958.809x1 lm		
Name: S005528ZC1LZ		
MFR.:		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	104042	13230
80	60345	17085
75	46042	20070
70	39003	22136
65	34868	23444
60	32143	24235
55	30256	24774
50	28900	25092
45	27871	25293

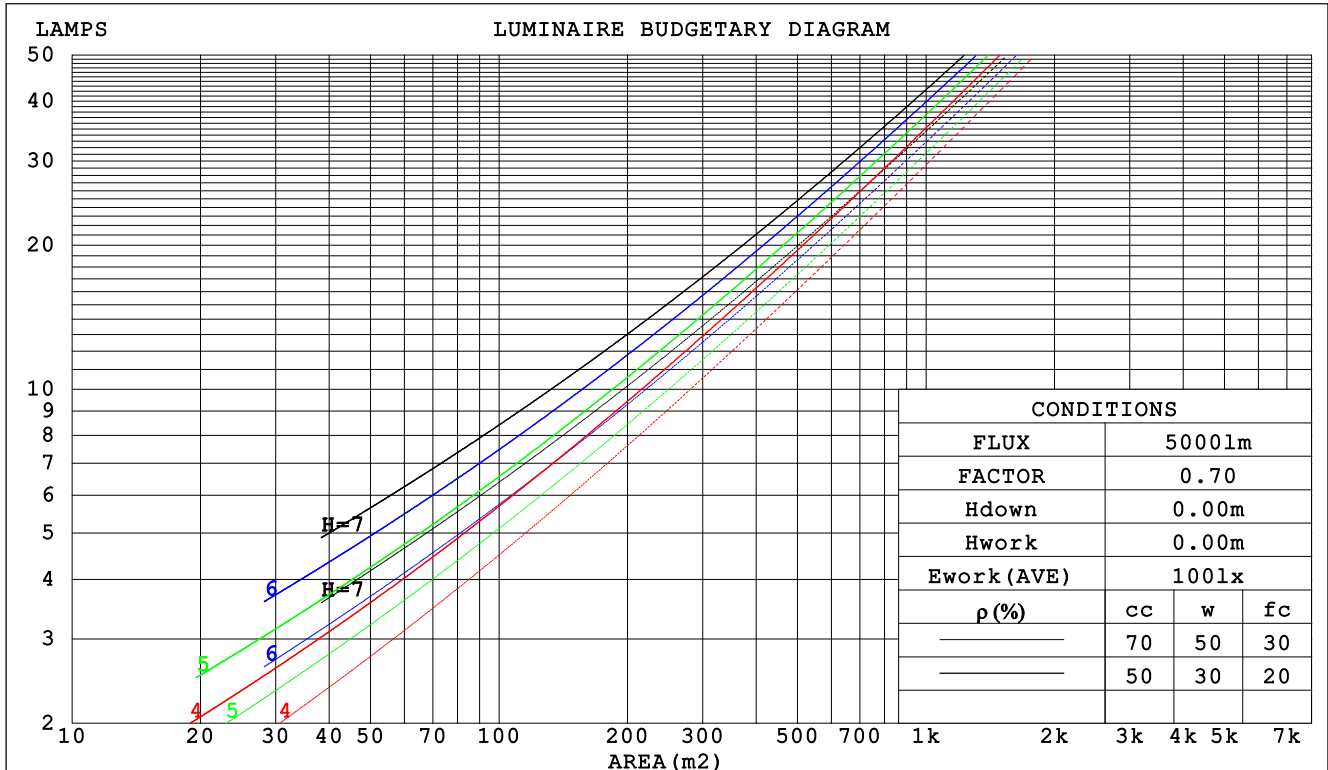
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz		
Lamp Flux:958.809x1 lm		
Name: S005528ZC1LZ		
MFR.:		

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	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.08	1.08	1.08	1.03	1.03	1.03	.98	.98	.98	.95
1.0	.99	.94	.89	.96	.91	.87	.91	.87	.83	.86	.83	.80	.82	.79	.77	.74
2.0	.85	.77	.70	.82	.75	.69	.78	.72	.67	.74	.69	.64	.70	.66	.62	.59
3.0	.74	.64	.57	.72	.63	.56	.68	.61	.55	.64	.58	.53	.61	.56	.51	.49
4.0	.65	.55	.48	.63	.54	.47	.60	.52	.46	.57	.50	.45	.54	.48	.44	.41
5.0	.57	.48	.41	.56	.47	.40	.53	.45	.39	.51	.44	.38	.48	.42	.37	.35
6.0	.51	.42	.35	.50	.41	.35	.48	.40	.34	.46	.39	.33	.44	.37	.33	.30
7.0	.46	.37	.31	.45	.37	.30	.43	.36	.30	.41	.35	.29	.40	.33	.29	.27
8.0	.42	.33	.27	.41	.33	.27	.40	.32	.27	.38	.31	.26	.36	.30	.26	.24
9.0	.39	.30	.24	.38	.30	.24	.36	.29	.24	.35	.28	.23	.34	.27	.23	.21
10.0	.36	.27	.22	.35	.27	.22	.34	.26	.21	.32	.26	.21	.31	.25	.21	.19



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

WEC AND CCEC

Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz		
Lamp Flux:958.809x1 lm		
Name: S005528ZC1LZ		
MFR.:		

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	.381	.217	.069	.373	.212	.068	.356	.204	.065	.341	.197	.063	.327	.190	.061		
2.0	.335	.184	.056	.327	.180	.056	.312	.174	.054	.299	.168	.052	.286	.162	.051		
3.0	.299	.159	.048	.292	.157	.047	.279	.151	.046	.267	.146	.045	.256	.142	.044		
4.0	.270	.141	.041	.264	.138	.041	.252	.134	.040	.242	.130	.039	.231	.126	.038		
5.0	.246	.125	.036	.241	.124	.036	.230	.120	.035	.220	.116	.035	.211	.113	.034		
6.0	.226	.113	.032	.221	.112	.032	.211	.108	.032	.203	.105	.031	.194	.102	.030		
7.0	.208	.103	.029	.204	.102	.029	.195	.099	.028	.187	.096	.028	.180	.094	.027		
8.0	.193	.095	.027	.189	.093	.026	.182	.091	.026	.174	.088	.025	.168	.086	.025		
9.0	.180	.087	.024	.177	.086	.024	.170	.084	.024	.163	.082	.023	.157	.080	.023		
10.0	.169	.081	.022	.165	.080	.022	.159	.078	.022	.153	.076	.022	.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	.228	.228	.228	.195	.195	.195	.133	.133	.133	.076	.076	.076	.024	.024	.024	
1.0	.223	.193	.167	.191	.166	.143	.131	.114	.099	.075	.066	.058	.024	.021	.019	
2.0	.216	.170	.131	.185	.146	.113	.127	.101	.079	.073	.059	.046	.023	.019	.015	
3.0	.208	.153	.108	.179	.132	.094	.123	.092	.066	.071	.053	.039	.023	.017	.013	
4.0	.201	.140	.094	.172	.121	.081	.118	.084	.057	.068	.049	.034	.022	.016	.011	
5.0	.193	.130	.083	.165	.112	.073	.114	.078	.051	.066	.046	.030	.021	.015	.010	
6.0	.185	.122	.076	.159	.105	.066	.110	.074	.047	.064	.043	.028	.021	.014	.009	
7.0	.178	.115	.071	.153	.100	.062	.106	.070	.044	.061	.041	.026	.020	.013	.009	
8.0	.171	.109	.067	.147	.095	.058	.102	.066	.041	.059	.039	.025	.019	.013	.008	
9.0	.165	.104	.063	.142	.090	.055	.098	.064	.039	.057	.038	.023	.019	.012	.008	
10.0	.159	.100	.061	.137	.087	.053	.095	.061	.038	.055	.036	.023	.018	.012	.007	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-01-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz Lamp Flux:958.809x1 lm										
Name: S005528ZC1LZ										
MFR.:										
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	24.6	26.2	25.0	26.5	26.8	23.5	25.1	23.9	25.4	25.7
3H	27.1	28.5	27.4	28.8	29.2	25.1	26.6	25.5	26.9	27.3
4H	28.4	29.8	28.8	30.1	30.5	25.8	27.2	26.2	27.5	27.9
6H	29.8	31.1	30.2	31.5	31.9	26.2	27.6	26.7	27.9	28.3
8H	30.6	31.8	31.0	32.2	32.6	26.4	27.6	26.8	28.0	28.4
12H	31.4	32.7	31.9	33.1	33.5	26.4	27.7	26.9	28.1	28.5
4H 2H	25.3	26.7	25.7	27.0	27.4	24.4	25.8	24.8	26.2	26.5
3H	27.9	29.2	28.4	29.6	30.0	26.3	27.5	26.7	27.9	28.3
4H	29.4	30.6	29.9	31.0	31.4	27.1	28.3	27.6	28.7	29.1
6H	31.1	32.1	31.5	32.5	33.0	27.8	28.8	28.3	29.2	29.7
8H	32.0	32.9	32.4	33.4	33.9	28.0	29.0	28.5	29.4	29.9
12H	33.0	33.8	33.5	34.3	34.8	28.1	29.0	28.7	29.5	30.0
8H 4H	29.8	30.8	30.3	31.2	31.7	27.9	28.9	28.4	29.3	29.8
6H	31.7	32.5	32.2	33.0	33.6	28.9	29.7	29.4	30.2	30.7
8H	32.8	33.5	33.4	34.1	34.6	29.3	30.0	29.8	30.5	31.1
12H	34.1	34.7	34.6	35.3	35.8	29.6	30.2	30.2	30.8	31.4
12H 4H	29.8	30.7	30.3	31.2	31.7	28.1	29.0	28.7	29.5	30.0
6H	31.9	32.6	32.4	33.1	33.6	29.3	30.0	29.8	30.5	31.1
8H	33.1	33.7	33.6	34.2	34.8	29.8	30.5	30.4	31.0	31.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117, 958.8 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = -0.1$)
Area: 0.01 m2

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz		
Lamp Flux:958.809x1 lm		
Name: S005528ZC1LZ		
MFR.:		

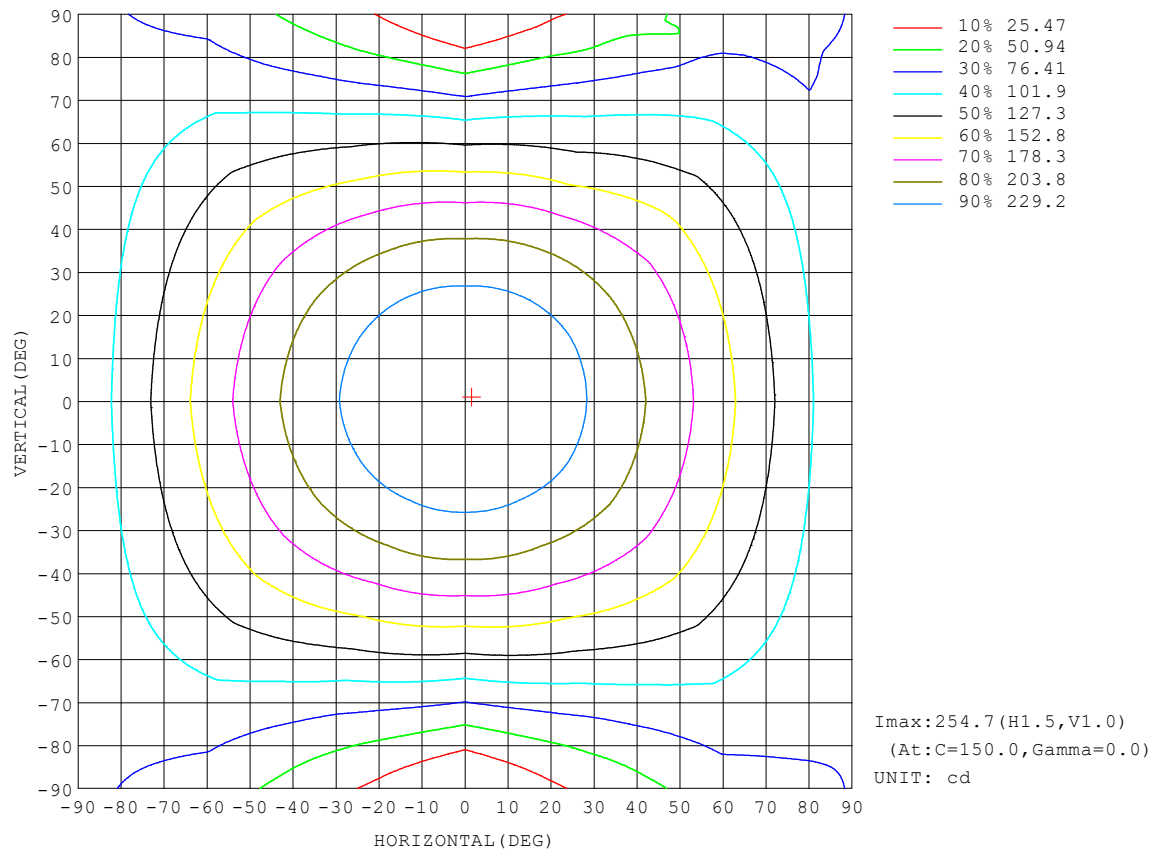
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	52	40	32	51	39	32	50	39	32	25
0.80	61	49	41	60	48	40	58	47	40	33
1.00	69	57	49	68	56	48	65	58	48	40
1.25	76	64	56	75	63	56	72	62	55	46
1.50	81	70	62	80	69	61	76	67	60	51
2.00	89	78	70	86	77	70	82	74	68	59
2.50	93	83	76	91	82	75	86	79	73	63
3.00	97	88	81	94	86	80	89	83	77	67
4.00	101	94	88	98	92	86	93	88	83	72
5.00	104	98	92	101	95	90	96	91	87	76
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:DAMIN
Test Date:2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz		
Lamp Flux:958.809x1 lm		
Name: S005528ZC1LZ		
MFR.:		

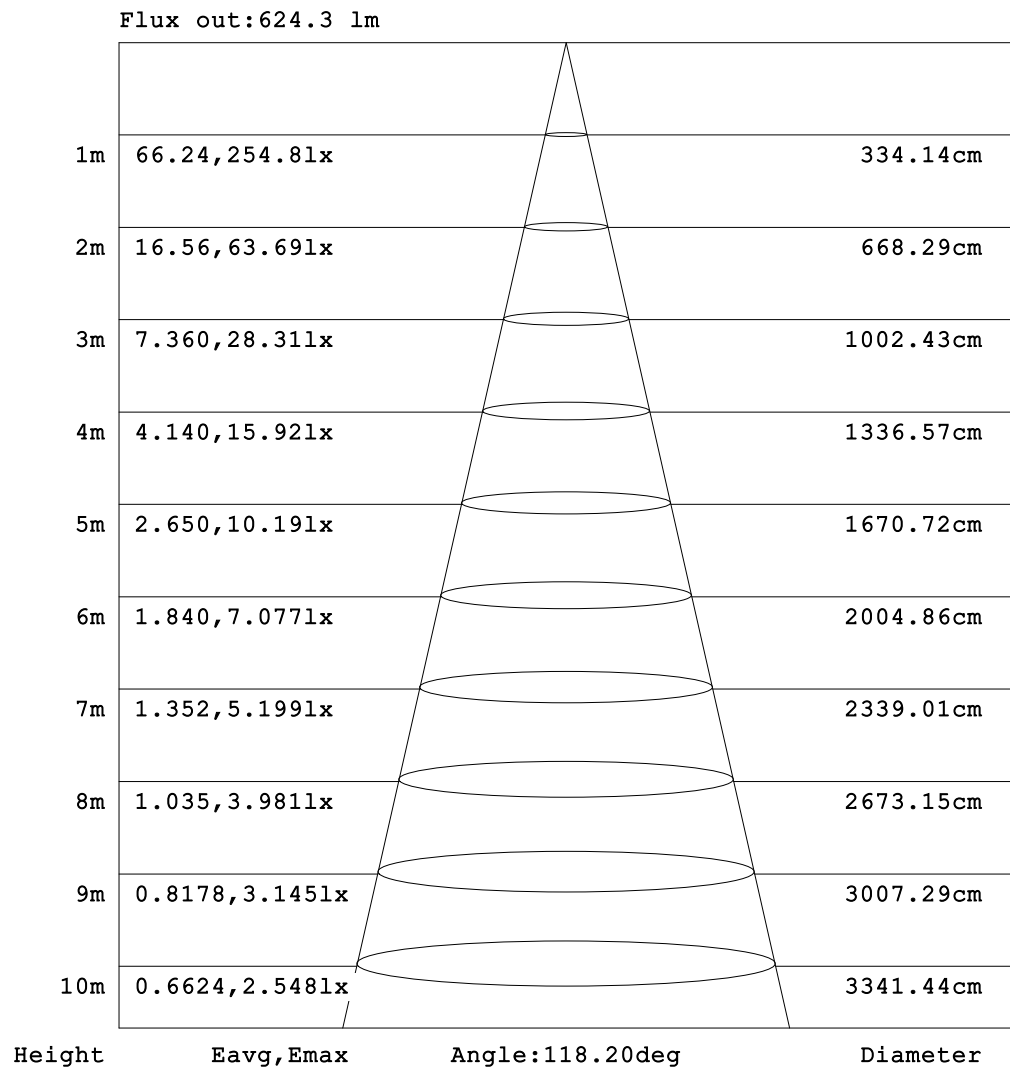


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks:

AAI Figure

Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz		
Lamp Flux:958.809x1 lm		
Name: S005528ZC1LZ		
MFR.:		



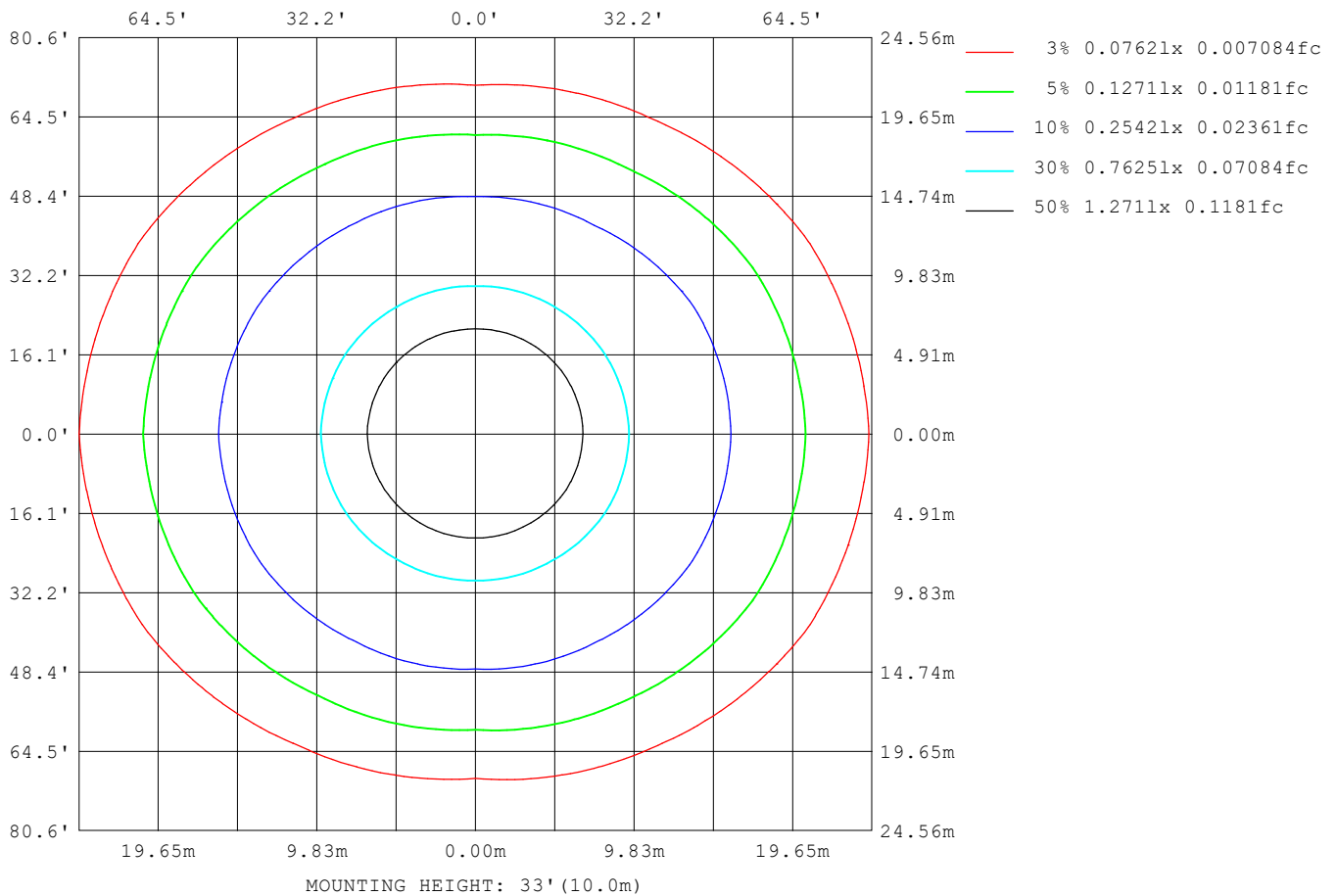
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
 Humidity:65.0%
 Test Distance:8.000m [K=0.7125]
 Remarks:

ISOLUX DIAGRAM

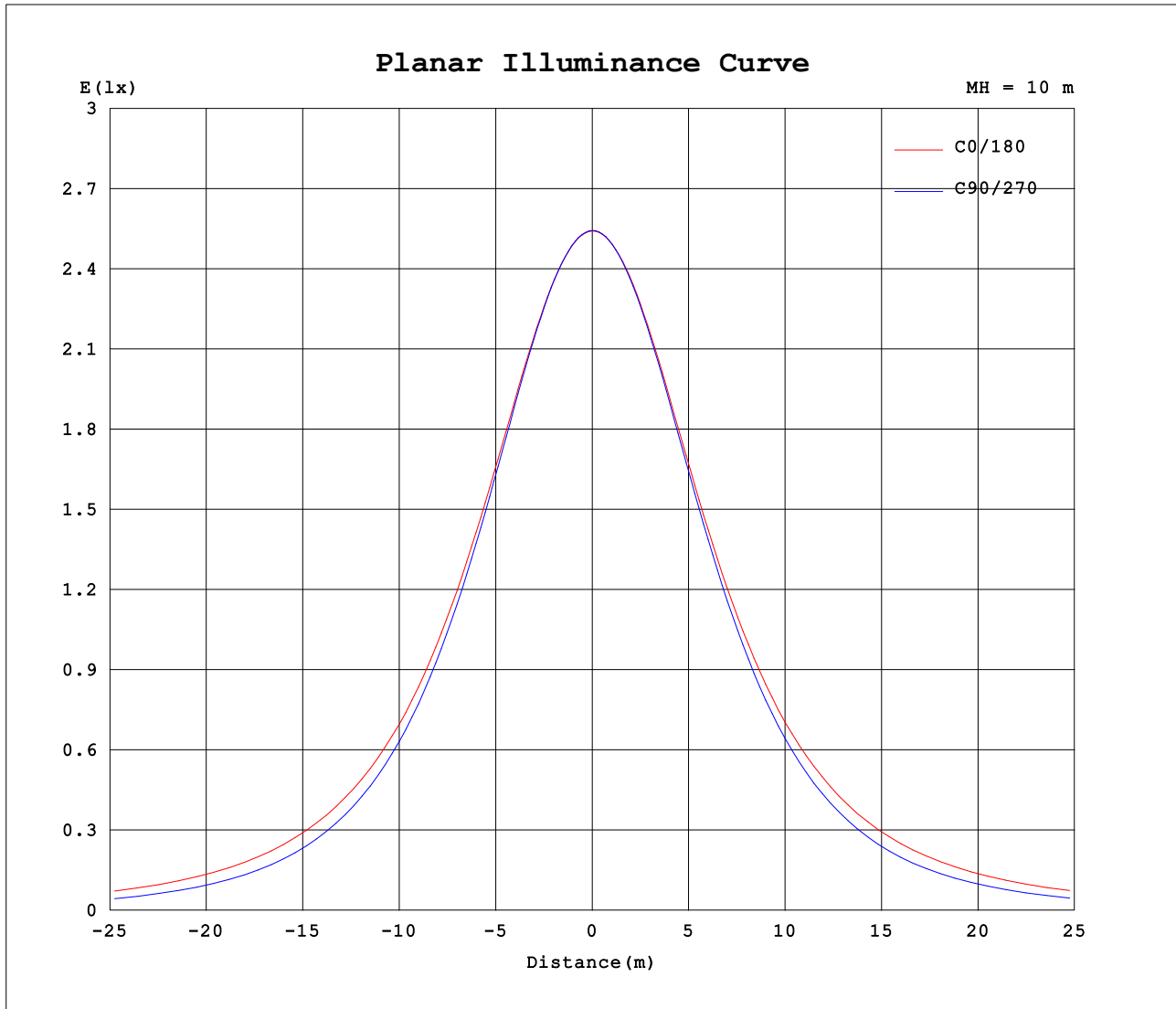
Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz		
Lamp Flux:958.809x1 lm		
Name: S005528ZC1LZ		
MFR.:		



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
 Humidity:65.0%
 Test Distance:8.000m [K=0.7125]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2024-01-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7125]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.000V I:0.3770A P:9.0000W PF:1.0000 Freq:0Hz																	
Lamp Flux:958.809x1 lm																	
Name: S005528ZC1LZ																	
MFR.:																	

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	254	254	254	254	255	255	254	254	254	254	255	255						
5	253	253	253	253	253	254	254	254	254	254	254	254						
10	250	251	250	250	251	251	251	251	251	251	251	252						
15	246	246	246	246	246	247	248	247	247	247	247	248						
20	241	241	239	239	240	241	242	242	241	241	241	242						
25	234	233	231	231	231	234	236	235	234	233	234	235						
30	226	225	221	220	222	225	228	226	224	223	224	226						
35	218	216	210	209	210	215	219	217	213	211	213	216						
40	208	205	197	195	197	205	210	206	201	197	201	205						
45	197	193	183	179	182	193	199	195	186	182	186	194						
50	186	181	167	161	166	180	188	182	172	165	169	182						
55	174	167	151	142	149	166	176	169	155	146	151	170						
60	161	153	133	121	131	152	163	155	137	125	132	156						
65	147	139	115	99.1	113	138	150	141	119	103	116	138						
70	133	124	96.5	75.7	94.3	123	136	126	100	80.4	98.6	124						
75	119	109	78.1	51.9	75.8	107	122	111	81.9	56.6	81.4	109						
80	105	93.8	60.5	29.7	58.1	92.5	108	96.1	64.8	33.7	64.3	93.2						
85	90.7	79.3	44.8	11.5	42.6	78.4	94.7	82.0	48.8	14.5	46.2	78.4						
90	77.1	65.6	32.0	1.08	30.3	65.3	81.2	68.8	35.3	2.33	31.9	65.6						
95	60.7	48.7	11.7	0.91	16.4	50.6	67.5	54.8	23.1	1.25	16.8	52.5						
100	31.5	18.5	0.97	0.76	1.23	30.5	49.8	36.5	3.44	1.19	2.15	25.9						
105	6.10	2.27	0.73	0.74	0.76	6.23	23.4	10.1	1.34	1.15	1.40	4.62						
110	1.17	0.91	0.60	0.70	0.70	1.23	3.94	2.01	1.25	1.13	1.33	1.81						
115	0.92	0.81	0.59	0.64	0.65	0.94	1.69	1.67	1.21	1.12	1.31	1.67						
120	0.81	0.70	0.57	0.61	0.61	0.90	1.39	1.57	1.18	1.12	1.27	1.54						
125	0.77	0.64	0.56	0.57	0.60	0.87	1.32	1.52	1.16	1.13	1.25	1.42						
130	0.77	0.64	0.58	0.57	0.62	0.83	1.26	1.46	1.16	1.14	1.29	1.36						
135	0.79	0.67	0.61	0.59	0.65	0.82	1.29	1.44	1.17	1.15	1.26	1.32						
140	0.83	0.71	0.64	0.63	0.70	0.84	1.30	1.43	1.18	1.16	1.24	1.32						
145	0.86	0.74	0.68	0.81	0.79	0.87	1.44	1.44	1.19	1.16	1.24	1.33						
150	0.89	0.78	0.82	0.84	0.86	0.91	1.44	1.44	1.19	1.16	1.23	1.34						
155	0.91	0.82	0.87	0.89	0.93	0.98	1.44	1.30	1.19	1.16	1.21	1.33						
160	0.94	0.86	0.91	0.93	1.00	1.06	1.41	1.25	1.19	1.18	1.22	1.34						
165	0.98	0.96	0.96	0.98	1.07	1.15	1.39	1.18	1.18	1.18	1.23	1.36						
170	1.02	1.00	1.00	1.03	1.17	1.23	1.38	1.16	1.16	1.17	1.23	1.33						
175	1.04	1.04	1.05	1.07	1.35	1.26	1.35	1.13	1.14	1.16	1.22	1.33						
180	1.10	1.12	1.10	1.11	1.40	1.28	1.09	1.10	1.10	1.13	1.19	1.30						

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-01-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7125]
Remarks: