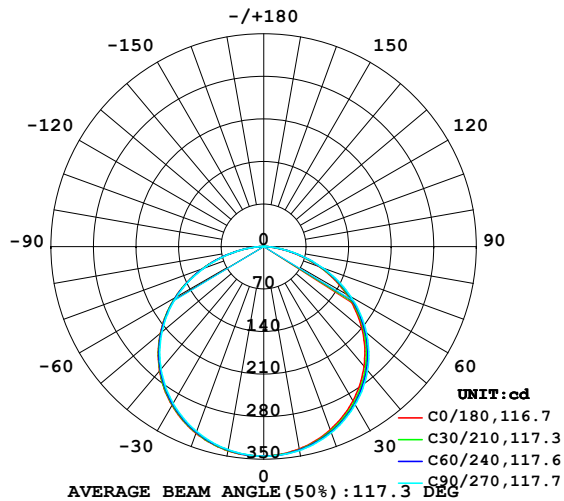


LUMINAIRE PHOTOMETRIC TEST REPORT

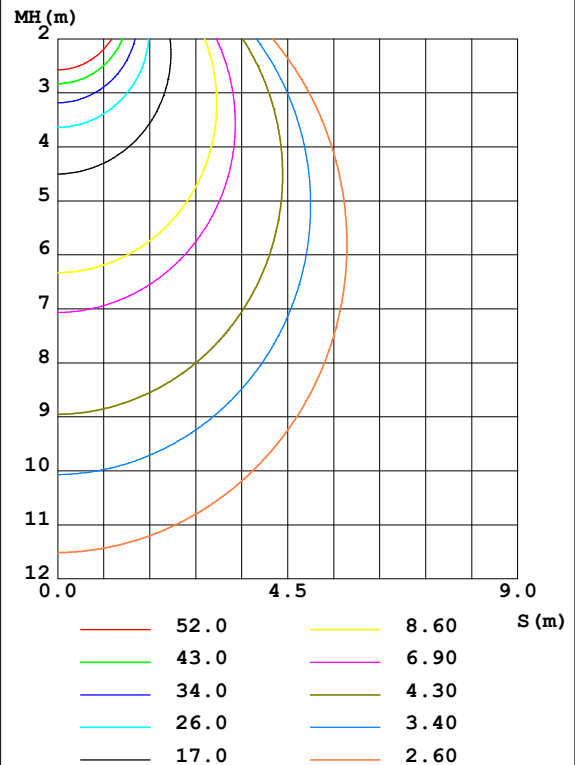
Test:U:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 104.42 lm/W			
MODEL		I _{max} (cd)	344.9	S/MH (C0/180)	1.30
NOMINAL POWER (W)	10	LOR (%)	100.0	S/MH (C90/270)	1.29
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	1044.2	η UP, DN (C0-180)	0.3, 49.4
NOMINAL FLUX (lm)	1044.24	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.5, 49.9
LAMPS INSIDE	1	η up (%)	0.7	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	24	η down (%)	99.3	CIBSE SHR MAX	1.50

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: 2024-04-18

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	337.9	339.4	340.5	341.0	341.0	340.2	339.2	338.5	0- 10	32.67	32.67	3.13,3.13
20	320.7	323.7	325.7	326.6	326.6	325.3	323.6	322.2	10- 20	94.13	126.8	12.1,12.1
30	293.6	297.9	300.8	301.9	301.8	300.3	298.1	295.9	20- 30	144.2	271.0	26,26
40	257.0	262.2	265.7	267.1	267.0	265.4	263.0	260.2	30- 40	176.7	447.7	42.9,42.9
50	211.4	216.8	220.6	222.1	222.2	221.0	218.8	215.5	40- 50	186.8	634.5	60.8,60.8
60	157.9	162.5	166.0	167.9	168.5	167.7	165.7	162.4	50- 60	172.2	806.8	77.3,77.3
70	97.93	101.0	103.7	106.0	107.5	107.2	105.6	102.4	60- 70	133.5	940.3	90,90
80	37.77	38.95	40.35	42.27	43.91	44.50	43.99	41.58	70- 80	76.37	1017	97.4,97.4
90	1.504	0.9984	1.102	2.305	3.439	3.103	2.407	1.941	80- 90	19.94	1037	99.3,99.3
100	0.7662	0.6109	0.6868	1.167	1.648	1.714	1.583	1.258	90-100	1.426	1038	99.4,99.4
110	0.7021	0.5931	0.6843	1.122	1.557	1.631	1.518	1.195	100-110	1.217	1039	99.5,99.5
120	0.7459	0.6441	0.7302	1.147	1.560	1.629	1.520	1.214	110-120	1.125	1040	99.6,99.6
130	0.8193	0.7218	0.8011	1.191	1.579	1.642	1.539	1.255	120-130	1.053	1041	99.7,99.7
140	0.8778	0.7932	0.8671	1.219	1.570	1.630	1.539	1.278	130-140	0.9374	1042	99.8,99.8
150	0.9653	0.9019	0.9656	1.253	1.538	1.592	1.521	1.303	140-150	0.7787	1043	99.9,99.9
160	1.094	1.060	1.108	1.302	1.494	1.537	1.493	1.338	150-160	0.5919	1044	100,100
170	1.222	1.220	1.248	1.332	1.414	1.447	1.437	1.356	160-170	0.3743	1044	100,100
180	1.283	1.312	1.323	1.303	1.283	1.304	1.325	1.314	170-180	0.1272	1044	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 541.38 lm

%lum = 51.8%

%lamp = 51.8%

Conical surface Flux(120deg): 806.76 lm

%lum = 77.3%

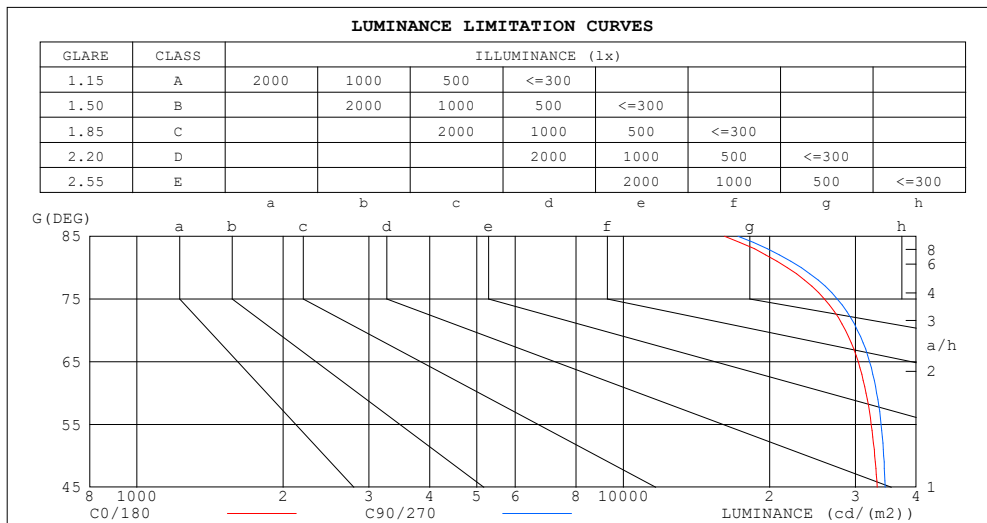
%lamp = 77.3%

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-04-18

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:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
MFR.:		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	16155	17219
80	21750	23235
75	25933	27535
70	28632	30310
65	30408	32095
60	31578	33192
55	32354	33890
50	32883	34316
45	33265	34551

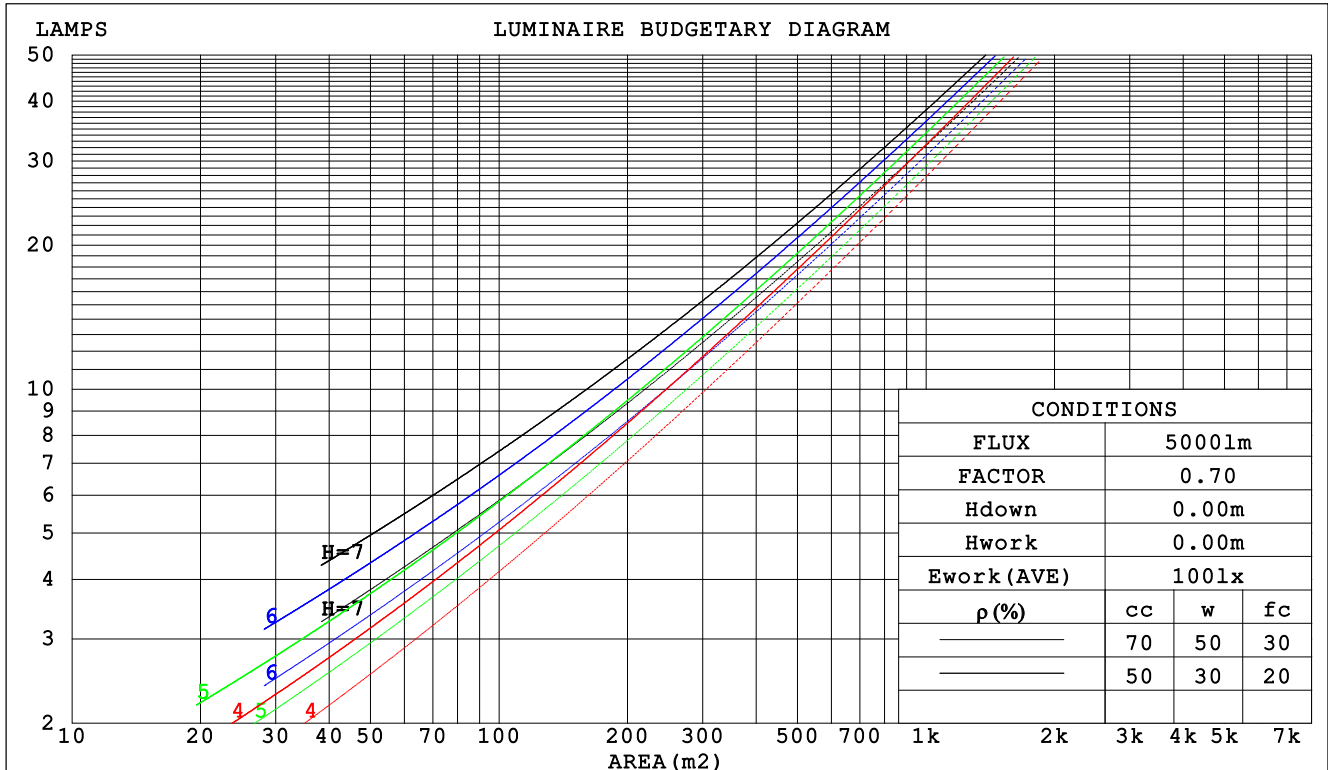
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-18

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:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	.99
1.0	1.03	.99	.95	1.01	.97	.94	.97	.93	.90	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.83	.77	.88	.82	.76	.84	.79	.74	.81	.76	.72	.78	.74	.71	.68
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.65	.61	.68	.64	.60	.57
4.0	.70	.61	.54	.68	.60	.53	.65	.58	.52	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.45	.56	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.39	.51	.44	.39	.49	.43	.39	.36
7.0	.50	.42	.35	.50	.41	.35	.48	.40	.35	.46	.40	.34	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.42	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.28	.41	.34	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.26
10.0	.39	.31	.25	.38	.31	.25	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-18

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:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
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	.314	.179	.057	.307	.175	.056	.293	.168	.054	.280	.162	.052	.269	.156	.050		
2.0	.296	.162	.050	.289	.159	.049	.277	.154	.048	.266	.149	.047	.255	.144	.046		
3.0	.273	.145	.044	.268	.143	.043	.257	.139	.042	.247	.135	.041	.238	.132	.041		
4.0	.252	.131	.038	.247	.129	.038	.237	.126	.038	.228	.123	.037	.220	.120	.036		
5.0	.233	.119	.034	.228	.117	.034	.220	.114	.034	.212	.112	.033	.204	.109	.033		
6.0	.216	.108	.031	.212	.107	.031	.204	.105	.030	.197	.102	.030	.190	.100	.030		
7.0	.201	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027		
8.0	.187	.091	.026	.184	.091	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025		
9.0	.175	.085	.024	.172	.084	.024	.167	.083	.023	.162	.081	.023	.157	.080	.023		
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.152	.076	.022	.148	.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	.196	.196	.196	.168	.168	.168	.114	.114	.114	.066	.066	.066	.021	.021	.021	
1.0	.186	.162	.140	.159	.139	.120	.109	.095	.083	.063	.055	.048	.020	.018	.016	
2.0	.178	.138	.103	.153	.118	.089	.105	.082	.062	.060	.048	.036	.019	.015	.012	
3.0	.171	.120	.080	.146	.104	.069	.101	.072	.048	.058	.042	.029	.019	.014	.009	
4.0	.163	.107	.064	.140	.092	.055	.096	.064	.039	.056	.038	.023	.018	.012	.008	
5.0	.156	.096	.053	.134	.083	.046	.092	.058	.032	.053	.034	.019	.017	.011	.006	
6.0	.149	.088	.045	.128	.076	.039	.088	.053	.027	.051	.031	.016	.017	.010	.005	
7.0	.142	.081	.039	.122	.070	.034	.084	.049	.024	.049	.029	.014	.016	.010	.005	
8.0	.135	.075	.034	.116	.065	.030	.081	.046	.021	.047	.027	.013	.015	.009	.004	
9.0	.129	.070	.031	.111	.061	.027	.077	.043	.019	.045	.025	.011	.015	.008	.004	
10.0	.123	.066	.028	.106	.057	.025	.074	.040	.017	.043	.024	.010	.014	.008	.003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-18

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:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz Lamp Flux:1044.24x1 lm										
Name: SOO5120BC1LZ					Type: LED					
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	24.9	26.5	25.2	26.7	26.9	25.1	26.7	25.4	26.9	27.1
3H	26.5	27.9	26.8	28.1	28.4	26.7	28.1	27.0	28.3	28.6
4H	27.0	28.4	27.4	28.6	28.9	27.3	28.6	27.6	28.9	29.2
6H	27.4	28.7	27.7	29.0	29.2	27.7	28.9	28.0	29.2	29.5
8H	27.5	28.7	27.8	29.0	29.3	27.8	29.0	28.1	29.3	29.6
12H	27.5	28.7	27.9	29.0	29.3	27.8	29.0	28.2	29.3	29.6
4H 2H	25.6	26.9	25.9	27.2	27.5	25.7	27.1	26.1	27.3	27.6
3H	27.3	28.5	27.6	28.8	29.1	27.5	28.6	27.8	28.9	29.3
4H	28.0	29.0	28.4	29.4	29.7	28.2	29.2	28.6	29.6	29.9
6H	28.4	29.4	28.9	29.8	30.1	28.7	29.6	29.1	30.0	30.4
8H	28.6	29.5	29.0	29.9	30.3	28.8	29.7	29.2	30.1	30.5
12H	28.7	29.5	29.1	29.9	30.3	28.9	29.7	29.3	30.1	30.5
8H 4H	28.2	29.1	28.6	29.5	29.9	28.4	29.3	28.8	29.7	30.1
6H	28.8	29.6	29.3	30.0	30.4	29.0	29.8	29.5	30.2	30.6
8H	29.0	29.7	29.5	30.1	30.6	29.2	29.9	29.7	30.3	30.8
12H	29.2	29.7	29.7	30.2	30.7	29.4	29.9	29.9	30.4	30.9
12H 4H	28.2	29.0	28.7	29.4	29.9	28.4	29.2	28.8	29.6	30.0
6H	28.9	29.5	29.3	30.0	30.4	29.1	29.7	29.5	30.2	30.6
8H	29.1	29.7	29.6	30.1	30.6	29.3	29.9	29.8	30.3	30.8
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1044 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 0.2$)
Area: 0.01 m2

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-18

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:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
MFR.:		

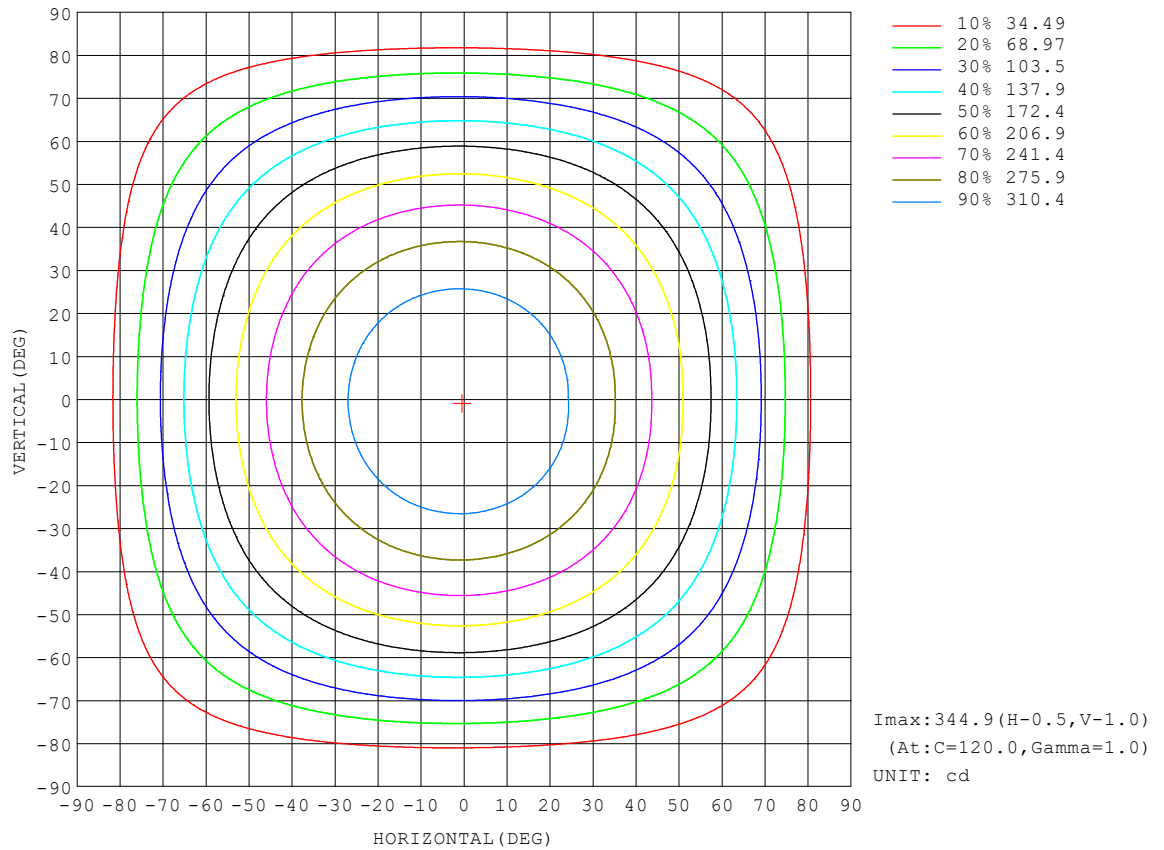
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	45	38	56	44	38	54	44	37	31
0.80	67	55	47	65	54	47	64	53	47	40
1.00	75	64	56	74	63	56	71	64	55	48
1.25	82	71	64	81	71	64	78	69	63	55
1.50	87	77	70	86	76	69	82	74	68	61
2.00	94	86	79	92	84	78	89	82	77	68
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	99	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	103	99	106	101	98	101	98	94	85
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:2024-04-18

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:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
MFR.:		

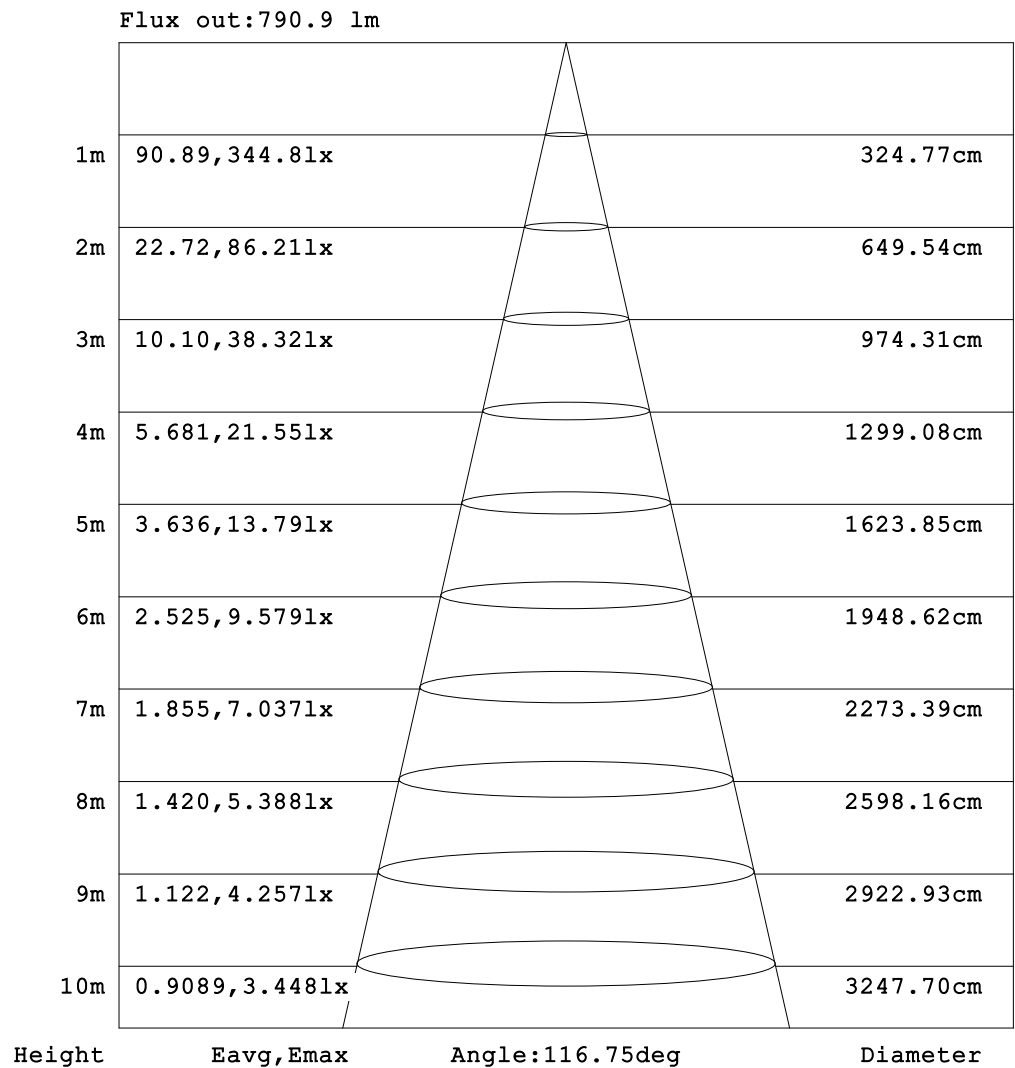


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-18

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:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
MFR.:		



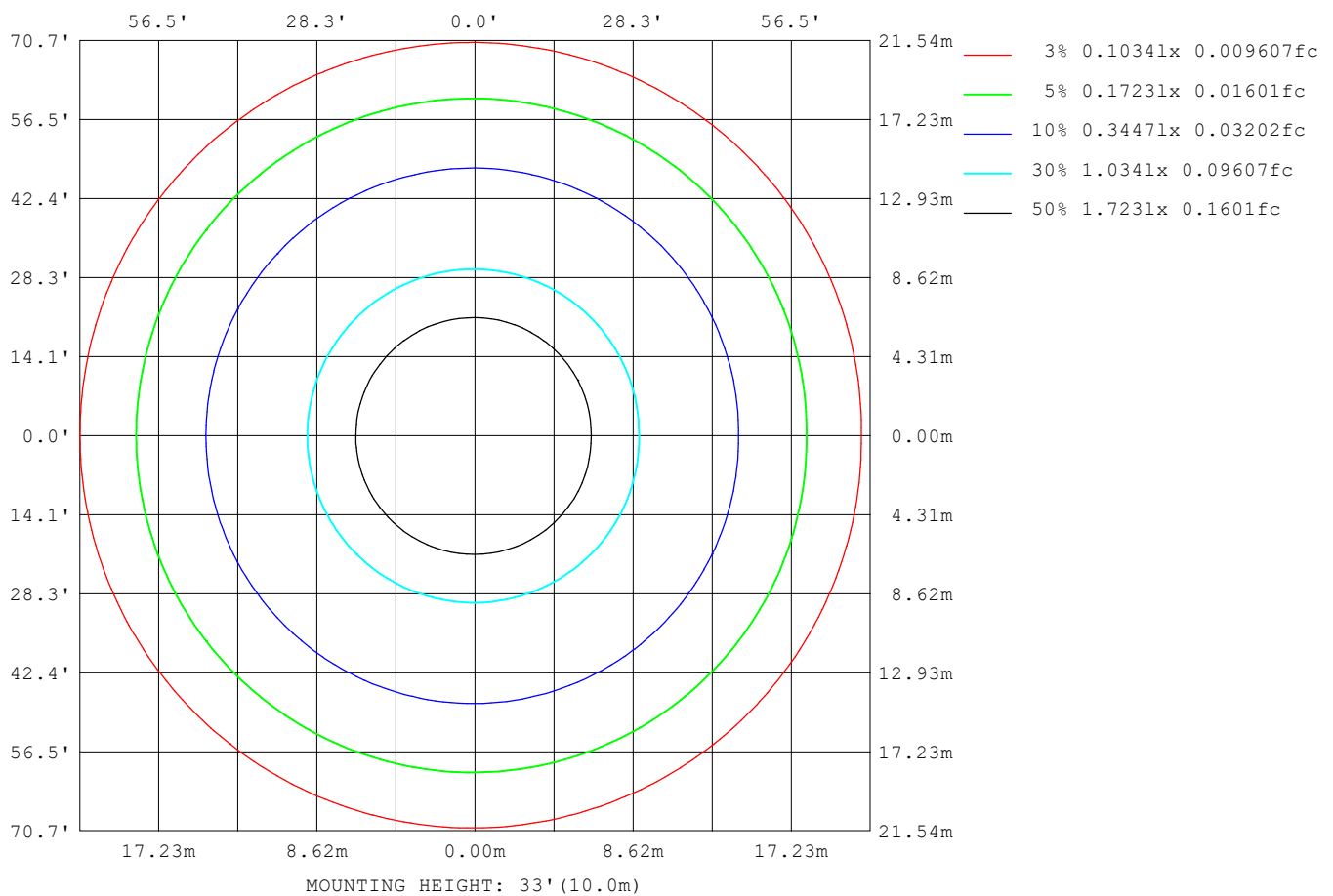
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-18

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

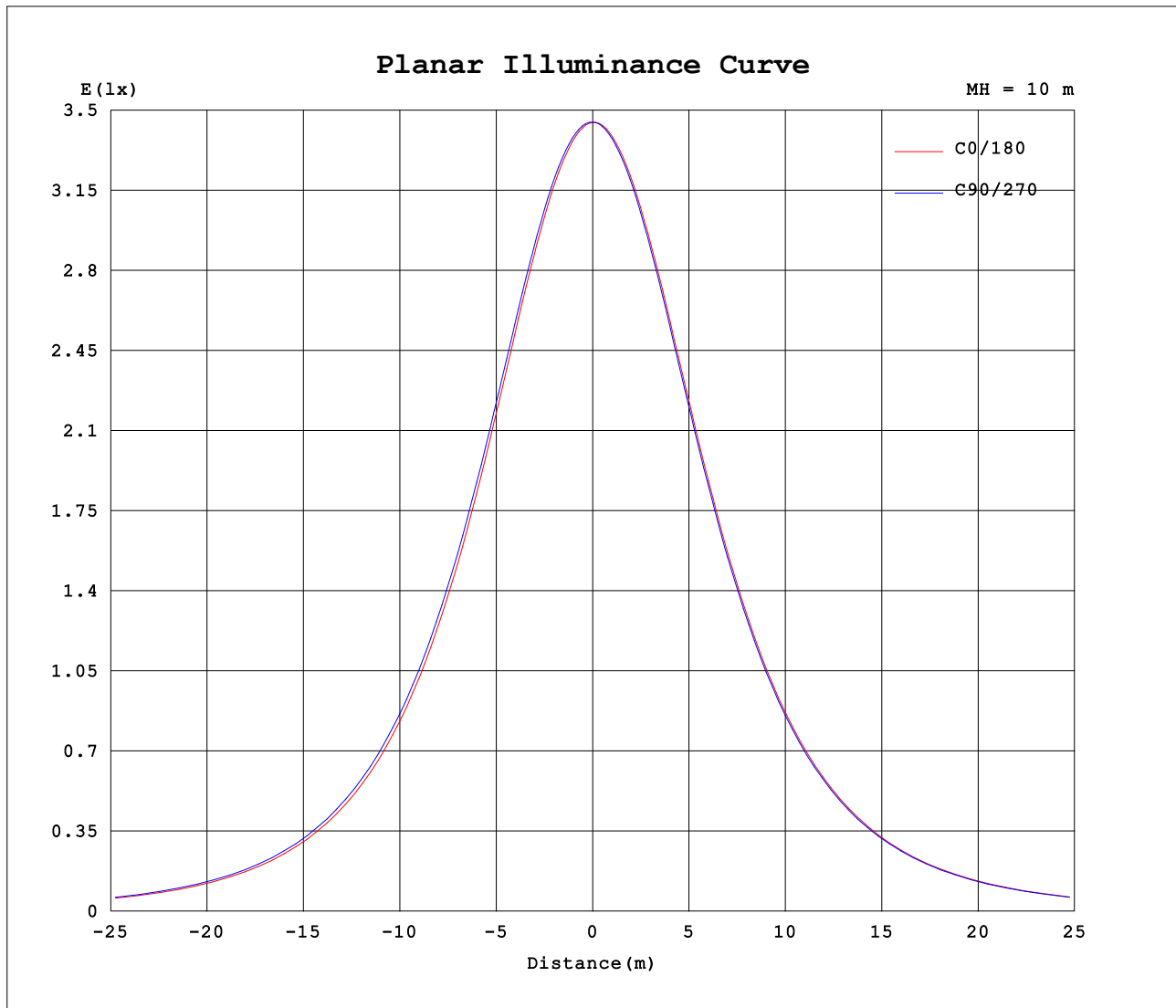
Test:U:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
MFR.:		



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2024-04-18

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: 2024-04-18

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:24.00V I:0.4180A P:10.000W PF:1.000 Freq:0Hz		
Lamp Flux:1044.24x1 lm		
Name: SOO5120BC1LZ	Type: LED	
MFR.:		

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	345	345	345	345	345	345	345	345	345	345	345	345							
5	343	343	344	344	344	344	344	344	344	343	343	343							
10	338	339	340	340	341	341	341	341	340	339	339	338							
15	331	332	333	334	335	335	335	334	334	333	332	331							
20	321	323	325	326	326	327	327	326	325	324	323	322							
25	308	311	313	315	315	316	316	315	313	312	311	310							
30	294	297	299	301	302	302	302	301	300	298	297	295							
35	276	280	283	285	286	286	286	285	283	282	280	278							
40	257	261	264	266	267	267	267	266	265	263	261	259							
45	235	239	242	244	246	246	246	245	244	242	240	238							
50	211	215	218	221	222	222	222	222	220	219	217	214							
55	186	189	192	194	196	196	196	196	195	193	191	189							
60	158	161	164	166	167	168	169	168	167	166	164	161							
65	129	131	134	136	137	138	139	139	138	136	134	132							
70	97.9	100	102	104	105	107	107	108	107	106	104	101							
75	67.1	68.5	69.9	71.3	72.9	74.4	75.4	75.6	75.2	74.1	72.4	70.1							
80	37.8	38.5	39.4	40.3	41.6	42.9	43.9	44.5	44.5	44.0	42.6	40.5							
85	14.1	14.1	14.5	15.0	16.0	17.1	18.1	18.7	18.9	18.7	17.7	16.2							
90	1.50	1.07	0.93	1.10	1.88	2.73	3.44	3.30	2.91	2.41	2.09	1.79							
95	0.83	0.65	0.61	0.69	1.03	1.41	1.75	1.81	1.77	1.63	1.44	1.17							
100	0.77	0.62	0.60	0.69	0.99	1.34	1.65	1.73	1.70	1.58	1.39	1.12							
105	0.70	0.59	0.59	0.68	0.98	1.31	1.60	1.68	1.66	1.55	1.35	1.07							
110	0.70	0.60	0.59	0.68	0.97	1.28	1.56	1.64	1.62	1.52	1.33	1.06							
115	0.72	0.61	0.61	0.70	0.97	1.28	1.55	1.63	1.61	1.51	1.33	1.07							
120	0.75	0.65	0.64	0.73	1.00	1.30	1.56	1.64	1.62	1.52	1.34	1.09							
125	0.78	0.69	0.68	0.77	1.03	1.31	1.57	1.64	1.63	1.53	1.36	1.11							
130	0.82	0.72	0.72	0.80	1.05	1.33	1.58	1.65	1.63	1.54	1.37	1.13							
135	0.85	0.76	0.75	0.83	1.07	1.34	1.57	1.64	1.63	1.54	1.38	1.15							
140	0.88	0.79	0.79	0.87	1.09	1.35	1.57	1.64	1.62	1.54	1.39	1.17							
145	0.92	0.84	0.84	0.91	1.12	1.35	1.56	1.62	1.61	1.53	1.39	1.19							
150	0.97	0.90	0.90	0.97	1.15	1.36	1.54	1.60	1.59	1.52	1.40	1.21							
155	1.03	0.98	0.98	1.04	1.19	1.36	1.52	1.57	1.56	1.51	1.40	1.24							
160	1.09	1.06	1.06	1.11	1.23	1.37	1.49	1.54	1.54	1.49	1.40	1.27							
165	1.16	1.14	1.15	1.18	1.27	1.37	1.46	1.49	1.50	1.47	1.40	1.30							
170	1.22	1.22	1.22	1.25	1.30	1.36	1.41	1.44	1.45	1.44	1.39	1.32							
175	1.28	1.29	1.30	1.31	1.32	1.34	1.35	1.37	1.38	1.38	1.36	1.33							
180	1.28	1.31	1.32	1.32	1.31	1.30	1.28	1.30	1.31	1.33	1.32	1.31							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-04-18

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: