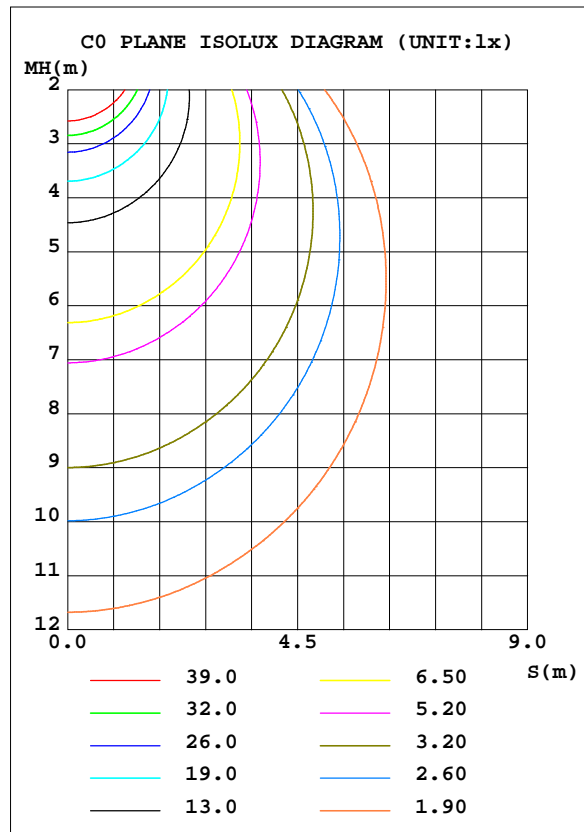
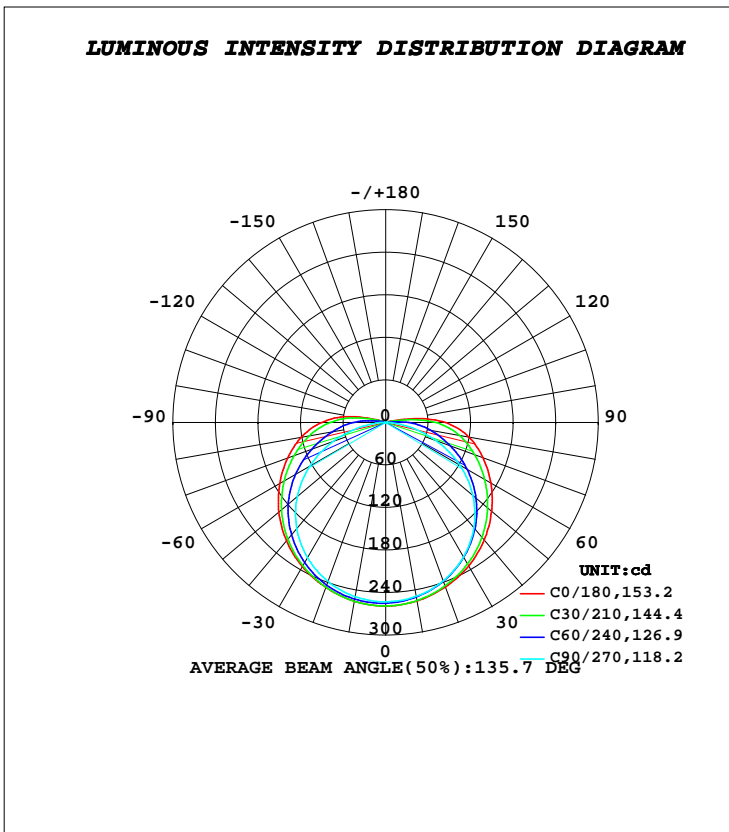


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	Type: LED	
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 107.60 lm/W			
MODEL		I _{max} (cd)	259.0	S/MH(C0/180)	1.36
NOMINAL POWER(W)	9.3	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	1000.7	η UP, DN(C0-180)	3.0,47.4
NOMINAL FLUX(lm)	1000.7	CIE CLASS	DIRECT	η UP, DN(C180-360)	2.8,46.7
LAMPS INSIDE	1	η up(%)	5.8	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	12	η down(%)	94.2	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-11-03

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:

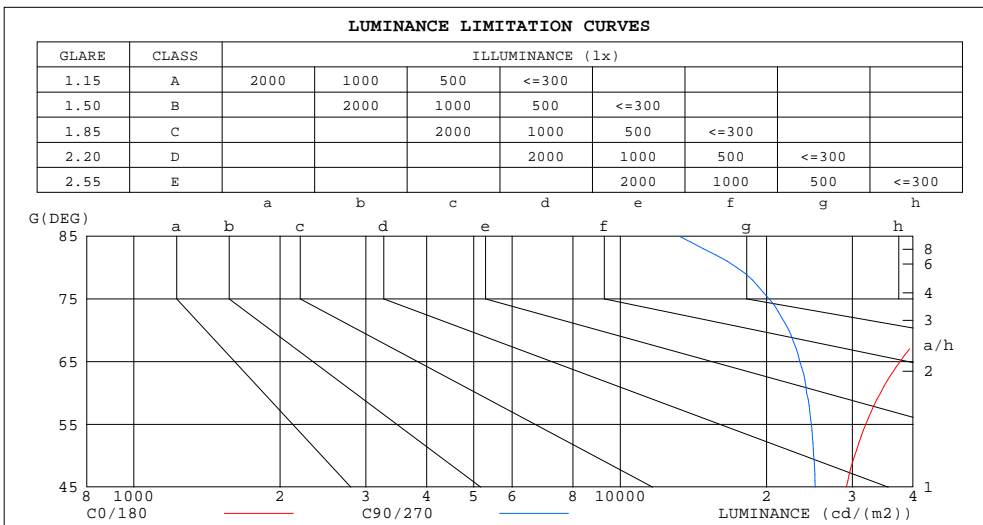
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	255.6	252.5	249.0	248.6	256.1	254.5	249.4	244.9	0- 10	24.12	24.12	2.41,2.41
20	246.8	241.7	237.8	240.7	247.5	245.6	238.5	233.5	10- 20	69.74	93.86	9.38,9.38
30	233.9	225.3	219.4	227.0	234.9	231.0	220.6	216.3	20- 30	108.0	201.9	20.2,20.2
40	216.4	203.7	193.7	207.9	217.8	210.8	195.3	193.8	30- 40	135.2	337.1	33.7,33.7
50	195.1	177.2	160.7	183.7	197.0	185.8	162.9	167.0	40- 50	148.4	485.4	48.5,48.5
60	171.4	147.1	120.9	155.5	172.7	156.2	123.8	137.1	50- 60	146.6	632.1	63.2,63.2
70	146.1	115.6	76.02	125.5	147.2	124.4	79.31	106.7	60- 70	131.1	763.2	76.3,76.3
80	119.0	84.96	30.18	95.91	121.2	92.98	33.20	76.85	70- 80	105.6	868.7	86.8,86.8
90	84.38	51.82	0.8823	65.36	90.13	61.76	2.692	45.97	80- 90	73.61	942.3	94.2,94.2
100	27.23	9.079	0.6367	28.54	48.95	24.13	1.309	11.99	90-100	39.08	981.4	98.1,98.1
110	2.451	1.145	0.6127	14.25	7.351	4.168	1.238	2.067	100-110	10.25	991.7	99.1,99.1
120	0.8981	0.7936	0.6342	10.24	1.576	1.558	1.224	1.492	110-120	3.337	995.0	99.4,99.4
130	0.8487	0.7715	0.6776	7.203	1.391	1.341	1.241	1.379	120-130	2.165	997.2	99.6,99.6
140	0.9004	0.8378	0.7469	4.366	1.347	1.334	1.257	1.359	130-140	1.462	998.6	99.8,99.8
150	0.9746	0.9204	0.8337	2.863	1.354	1.345	1.263	1.331	140-150	0.9768	999.6	99.9,99.9
160	1.048	1.015	0.9372	1.588	1.338	1.334	1.250	1.297	150-160	0.6264	1000	100,100
170	1.146	1.116	1.052	1.111	1.295	1.293	1.212	1.249	160-170	0.3428	1001	100,100
180	1.207	1.198	1.144	1.165	1.207	1.202	1.129	1.170	170-180	0.1134	1001	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-11-03

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:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	Type: LED	
MFR.:		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	118100	13218
80	68544	17379
75	51406	20258
70	42729	22226
65	37605	23416
60	34280	24188
55	31987	24712
50	30348	25006
45	29150	25194

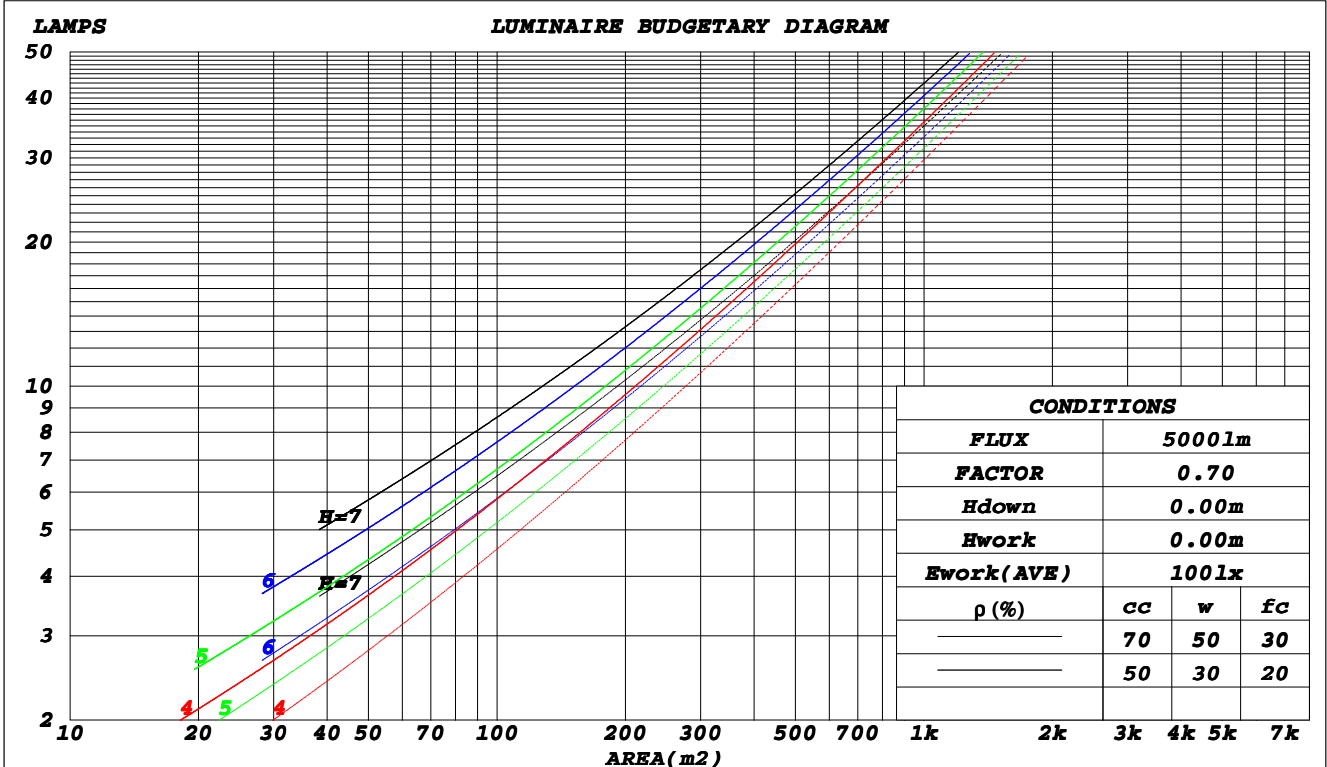
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2023-11-03

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:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	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	1.18	1.18	1.18	1.14	1.14	1.14	1.08	1.08	1.08	1.02	1.02	1.02	.97	.97	.97	.94
1.0	.98	.93	.88	.95	.90	.86	.90	.86	.82	.85	.82	.79	.80	.78	.75	.72
2.0	.84	.76	.69	.82	.74	.68	.77	.71	.65	.73	.67	.63	.69	.64	.61	.58
3.0	.73	.64	.56	.71	.62	.55	.67	.60	.54	.63	.57	.52	.60	.55	.50	.48
4.0	.64	.54	.47	.62	.53	.46	.59	.51	.45	.56	.49	.44	.53	.47	.42	.40
5.0	.57	.47	.40	.55	.46	.39	.52	.44	.38	.50	.43	.37	.47	.41	.36	.34
6.0	.51	.41	.34	.50	.41	.34	.47	.39	.33	.45	.38	.32	.43	.36	.32	.29
7.0	.46	.37	.30	.45	.36	.30	.43	.35	.29	.41	.34	.28	.39	.33	.28	.26
8.0	.42	.33	.27	.41	.32	.26	.39	.31	.26	.37	.30	.25	.36	.29	.25	.23
9.0	.38	.30	.24	.37	.29	.24	.36	.28	.23	.34	.28	.23	.33	.27	.22	.20
10.0	.35	.27	.21	.34	.27	.21	.33	.26	.21	.32	.25	.21	.30	.24	.20	.18



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2023-11-03

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:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.390	.222	.070	.381	.217	.069	.364	.209	.067	.348	.201	.064	.334	.194	.062	
2.0	.340	.186	.057	.332	.183	.056	.317	.176	.055	.303	.170	.053	.290	.164	.052	
3.0	.303	.161	.048	.296	.158	.048	.282	.153	.046	.270	.148	.045	.258	.143	.044	
4.0	.273	.142	.042	.266	.139	.041	.254	.135	.040	.243	.130	.039	.232	.126	.038	
5.0	.248	.126	.037	.242	.124	.036	.231	.120	.035	.221	.117	.035	.212	.113	.034	
6.0	.227	.114	.033	.222	.112	.032	.212	.109	.032	.203	.106	.031	.194	.102	.030	
7.0	.210	.104	.029	.205	.102	.029	.196	.099	.029	.188	.096	.028	.180	.093	.027	
8.0	.194	.095	.027	.190	.094	.026	.182	.091	.026	.174	.088	.025	.167	.086	.025	
9.0	.181	.088	.024	.177	.086	.024	.170	.084	.024	.163	.082	.023	.157	.079	.023	
10.0	.169	.081	.023	.166	.080	.022	.159	.078	.022	.153	.076	.022	.147	.074	.021	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.235	.235	.235	.201	.201	.201	.137	.137	.137	.079	.079	.079	.025	.025	.025	
1.0	.231	.200	.173	.197	.172	.149	.135	.118	.103	.078	.068	.060	.025	.022	.019	
2.0	.224	.177	.137	.192	.152	.119	.131	.105	.083	.076	.061	.049	.024	.020	.016	
3.0	.216	.160	.115	.185	.138	.100	.127	.096	.070	.073	.056	.041	.024	.018	.013	
4.0	.208	.147	.100	.179	.127	.087	.123	.089	.061	.071	.052	.036	.023	.017	.012	
5.0	.200	.137	.090	.172	.119	.078	.119	.083	.055	.069	.049	.033	.022	.016	.011	
6.0	.193	.129	.083	.166	.112	.072	.114	.078	.051	.066	.046	.030	.021	.015	.010	
7.0	.185	.122	.078	.159	.106	.068	.110	.074	.048	.064	.044	.029	.021	.014	.009	
8.0	.179	.116	.074	.154	.101	.064	.106	.071	.046	.062	.042	.027	.020	.014	.009	
9.0	.172	.111	.070	.148	.097	.061	.103	.068	.044	.060	.040	.026	.019	.013	.009	
10.0	.166	.107	.068	.143	.093	.059	.099	.065	.042	.058	.039	.025	.019	.013	.008	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-11-03

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:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	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	24.8	26.4	25.2	26.7	27.0	23.3	24.9	23.7	25.2	25.6
3H	27.4	28.8	27.8	29.2	29.5	25.0	26.4	25.4	26.8	27.2
4H	28.8	30.1	29.2	30.5	30.9	25.7	27.0	26.1	27.4	27.8
6H	30.3	31.6	30.7	32.0	32.4	26.1	27.4	26.5	27.8	28.2
8H	31.1	32.4	31.5	32.8	33.2	26.3	27.5	26.7	27.9	28.4
12H	32.0	33.2	32.5	33.7	34.1	26.3	27.6	26.8	28.0	28.4
4H 2H	25.4	26.8	25.8	27.2	27.6	24.3	25.7	24.7	26.1	26.5
3H	28.2	29.5	28.7	29.9	30.3	26.2	27.4	26.7	27.8	28.3
4H	29.8	30.9	30.3	31.4	31.8	27.1	28.2	27.5	28.6	29.1
6H	31.6	32.6	32.0	33.0	33.5	27.7	28.7	28.2	29.2	29.7
8H	32.5	33.4	33.0	33.9	34.4	28.0	28.9	28.5	29.4	29.9
12H	33.5	34.4	34.1	34.9	35.5	28.1	29.0	28.6	29.5	30.0
8H 4H	30.2	31.1	30.7	31.6	32.1	27.9	28.9	28.4	29.4	29.9
6H	32.2	33.0	32.8	33.5	34.1	28.9	29.7	29.5	30.3	30.8
8H	33.4	34.1	33.9	34.6	35.2	29.4	30.1	29.9	30.6	31.2
12H	34.7	35.3	35.2	35.9	36.5	29.7	30.3	30.3	30.9	31.5
12H 4H	30.2	31.1	30.7	31.6	32.1	28.2	29.1	28.7	29.6	30.1
6H	32.3	33.1	32.9	33.6	34.2	29.4	30.1	30.0	30.7	31.2
8H	33.6	34.2	34.2	34.8	35.4	30.0	30.6	30.5	31.2	31.8
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, 1001 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 0.0)
 Area: 0.01 m2

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2023-11-03

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:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	Type: LED	
MFR.:		

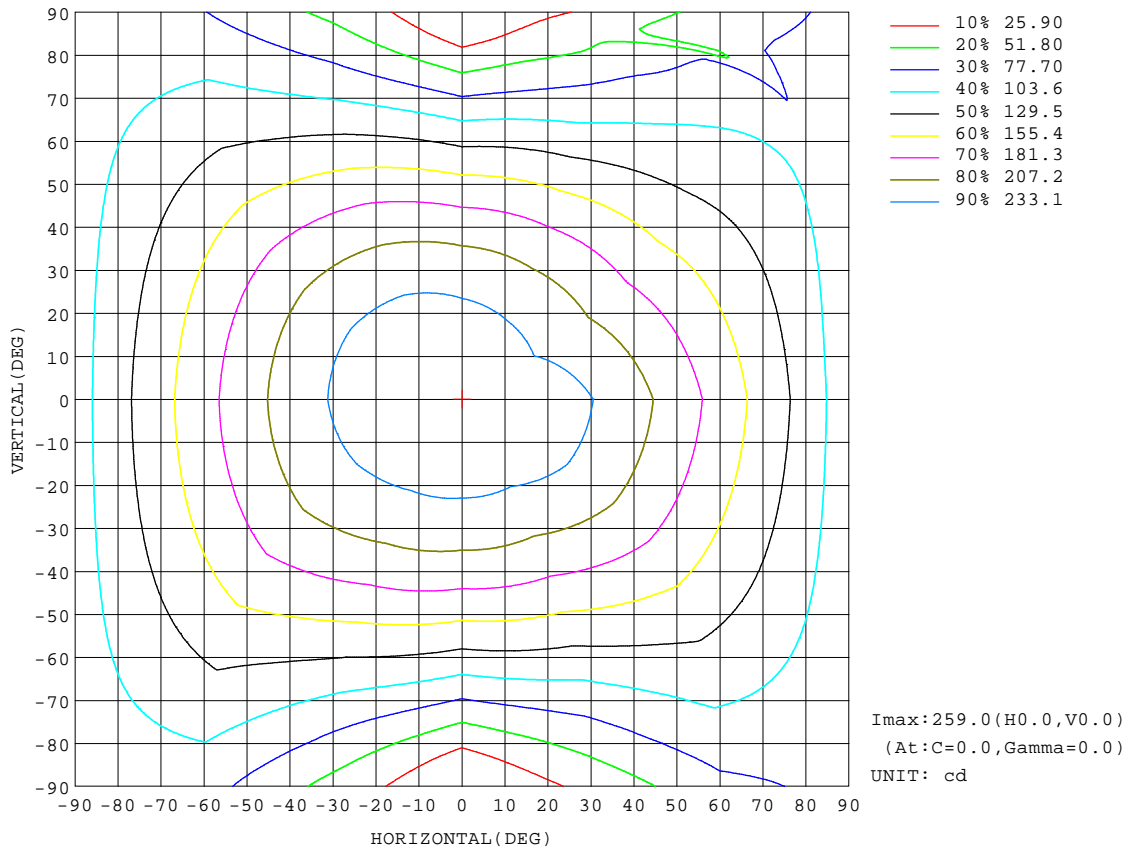
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	39	31	50	38	31	49	38	31	24
0.80	61	48	40	59	47	39	57	46	39	31
1.00	69	56	48	67	55	47	64	57	47	39
1.25	75	63	55	74	62	54	71	61	53	45
1.50	81	69	60	79	68	60	75	66	59	50
2.00	88	77	69	86	76	68	81	73	67	57
2.50	92	82	75	90	81	74	85	78	71	61
3.00	96	87	80	93	85	79	88	82	76	66
4.00	101	93	87	98	91	85	92	87	82	71
5.00	103	97	91	100	94	89	95	90	86	74
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-11-03

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:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	Type: LED	
MFR.:		



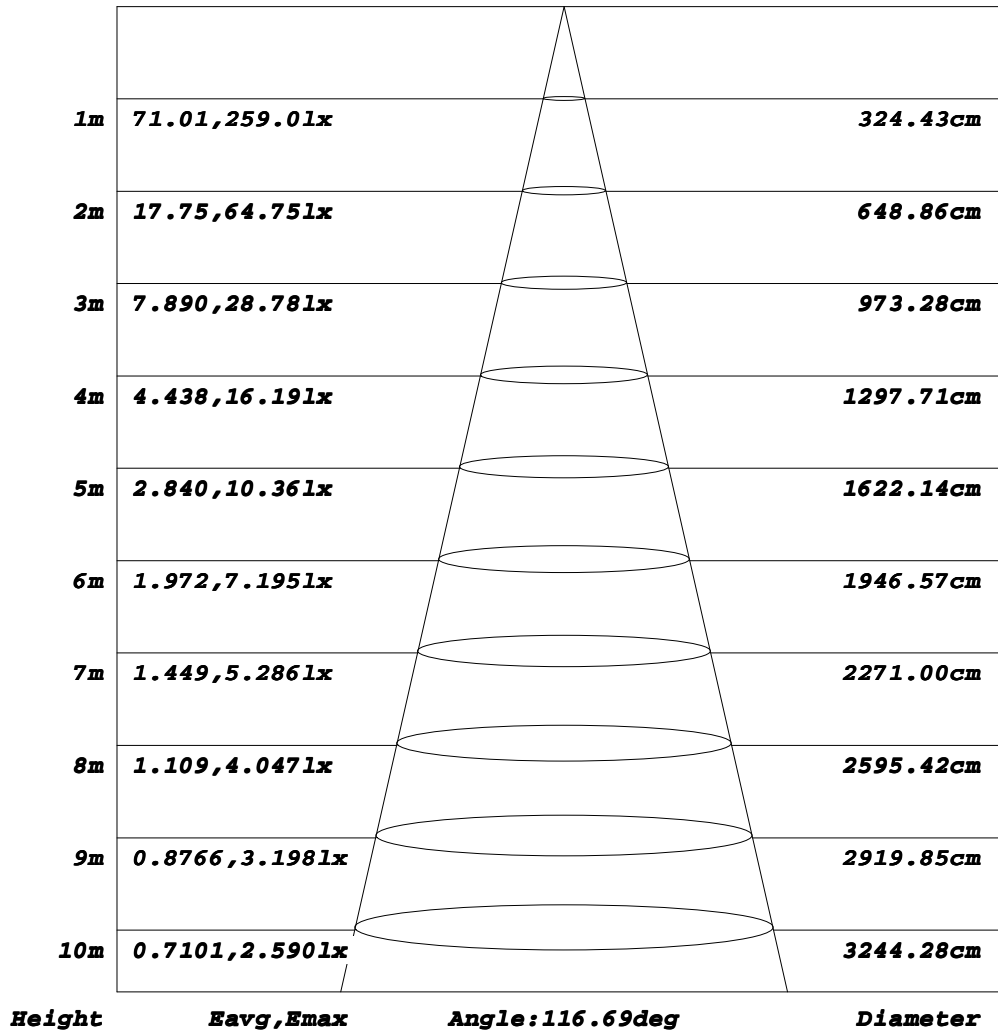
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2023-11-03

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:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	Type: LED	
MFR.:		

Flux out:617.9 lm



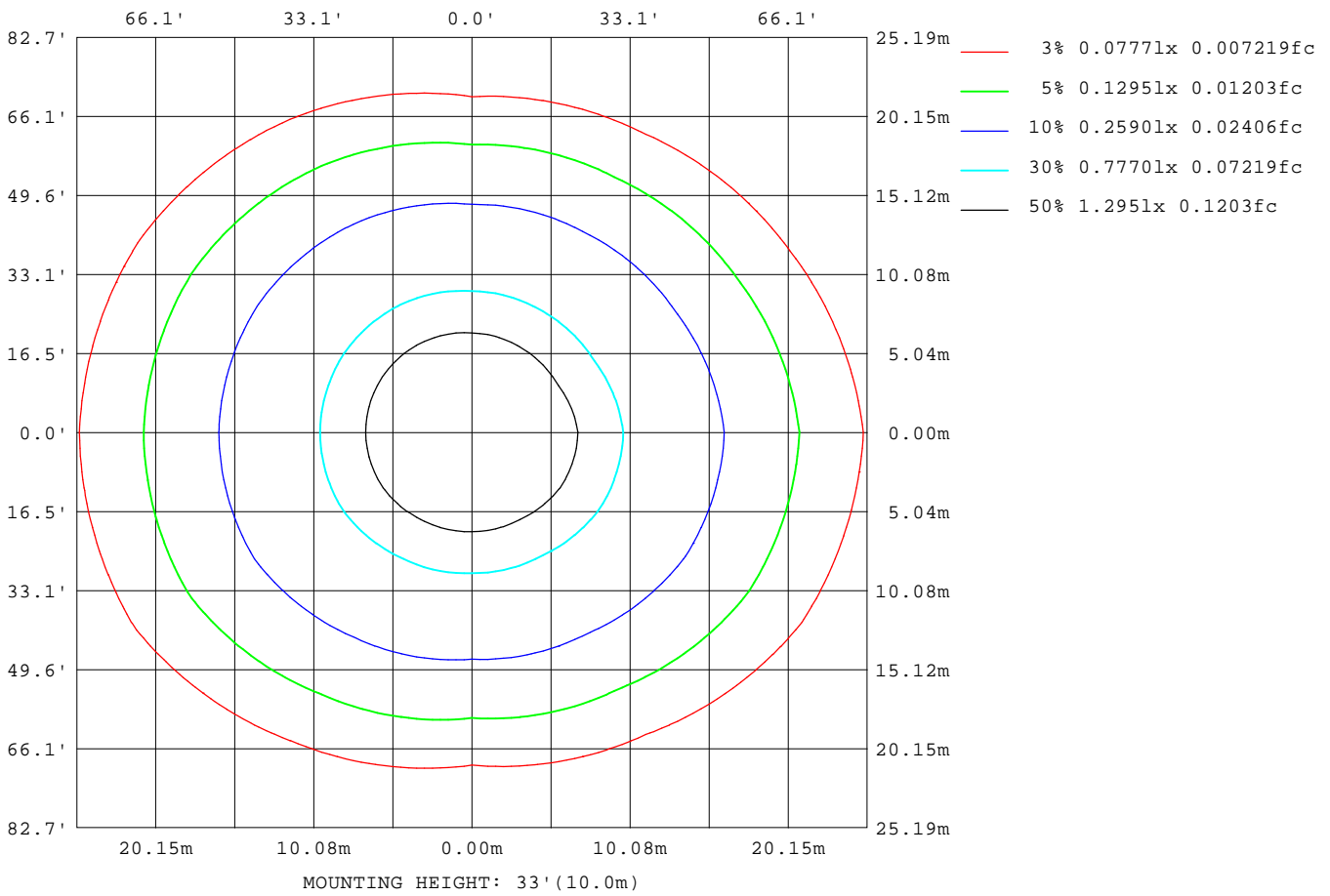
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2023-11-03

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

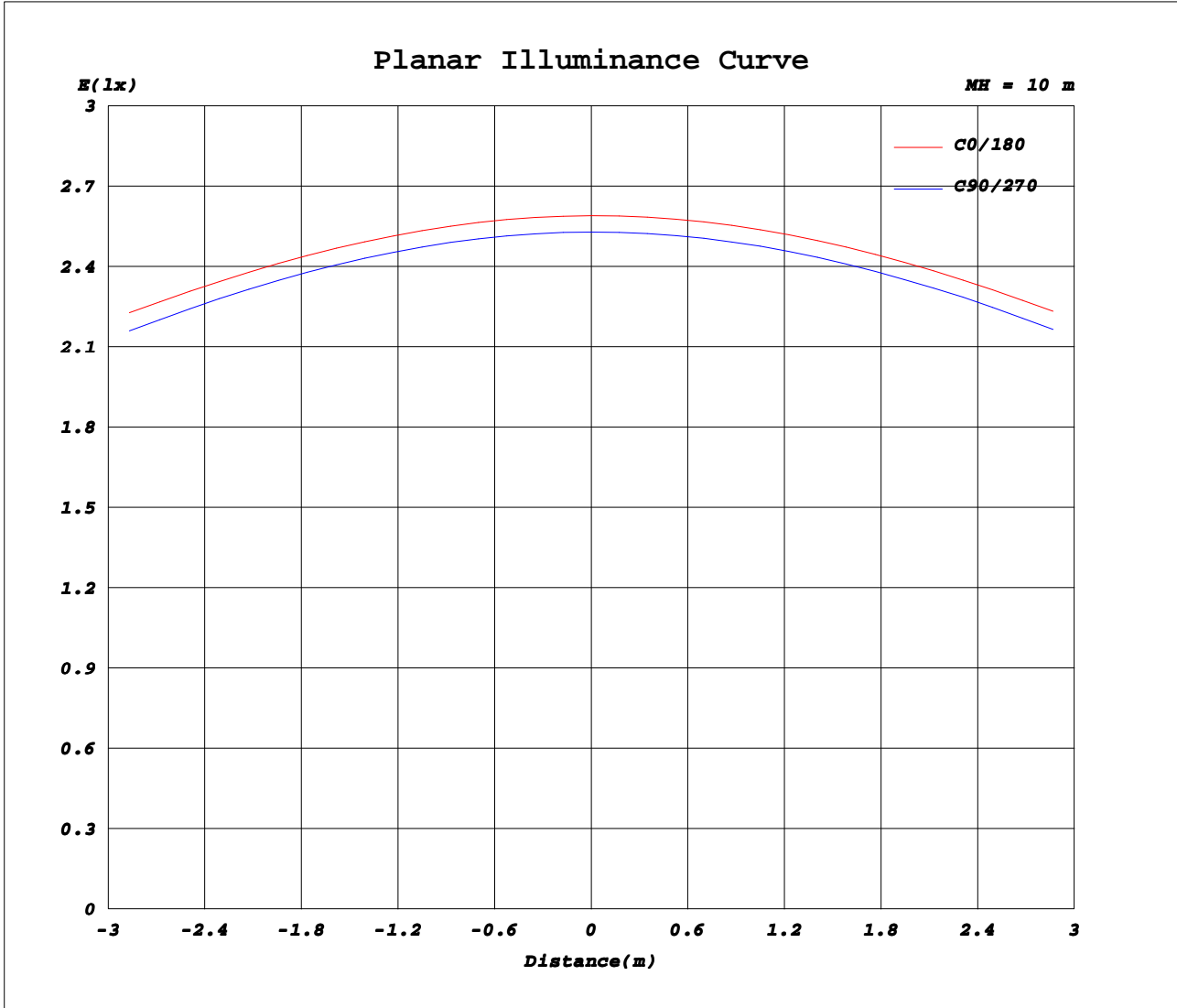
Test:U:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	Type: LED	
MFR.:		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2023-11-03

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: 2023-11-03

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:12.000V I:0.7750A P:9.3000W PF:1.0000 Freq:0Hz		
Lamp Flux:1000.7x1 lm		
Name: COB LED STRIP 9W 6000K IP20	Type: LED	
MFR.:		

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	259	259	255	253	251	250	259	259	255	253	251	250							
5	258	258	253	252	250	250	258	258	255	252	249	247							
10	256	255	250	249	248	249	256	256	253	249	246	244							
15	252	251	245	244	244	246	252	252	249	245	241	239							
20	247	245	238	238	239	242	247	247	244	239	235	232							
25	241	239	230	229	232	237	242	241	237	230	226	225							
30	234	231	220	219	223	231	235	234	228	221	217	216							
35	226	222	209	207	213	224	227	225	218	209	205	206							
40	216	211	196	194	201	215	218	215	207	195	193	195							
45	206	200	182	178	188	205	208	204	194	180	178	183							
50	195	188	167	161	173	194	197	192	180	163	164	171							
55	183	175	150	142	158	182	185	179	164	144	147	158							
60	171	161	133	121	141	170	173	165	147	124	129	145							
65	159	148	115	99.0	124	157	160	152	129	102	111	132							
70	146	134	97.4	76.0	107	144	147	138	111	79.3	94.4	119							
75	133	120	80.5	52.4	89.9	131	134	124	93.4	55.8	78.4	106							
80	119	106	64.3	30.2	73.9	118	121	109	76.5	33.2	60.6	93.1							
85	103	89.3	48.7	11.5	58.6	103	106	94.4	60.7	14.1	47.4	45.8							
90	84.4	71.0	32.6	0.88	43.2	87.5	90.1	78.4	45.1	2.69	30.1	61.8							
95	59.1	46.3	10.8	0.68	25.0	69.9	72.8	61.0	28.9	1.36	15.2	43.2							
100	27.2	16.5	1.64	0.64	11.4	45.7	49.0	37.0	11.3	1.31	3.10	20.9							
105	8.59	4.27	0.87	0.62	9.16	27.0	22.1	14.7	5.91	1.27	1.65	6.70							
110	2.45	1.53	0.76	0.61	7.52	21.0	7.35	5.19	3.15	1.24	1.44	2.69							
115	1.18	0.94	0.74	0.62	6.00	18.3	1.93	2.55	1.62	1.22	1.41	1.86							
120	0.90	0.86	0.73	0.63	4.46	16.0	1.58	1.76	1.35	1.22	1.34	1.64							
125	0.86	0.81	0.72	0.65	3.34	14.2	1.48	1.43	1.32	1.23	1.31	1.53							
130	0.85	0.80	0.75	0.68	2.30	12.1	1.39	1.37	1.31	1.24	1.30	1.46							
135	0.87	0.84	0.77	0.71	1.48	9.82	1.35	1.35	1.30	1.25	1.29	1.44							
140	0.90	0.88	0.80	0.75	1.03	7.70	1.35	1.35	1.31	1.26	1.29	1.43							
145	0.95	0.91	0.84	0.79	0.85	6.23	1.35	1.36	1.32	1.26	1.29	1.40							
150	0.97	0.95	0.89	0.83	0.89	4.84	1.35	1.36	1.33	1.26	1.28	1.38							
155	1.00	1.00	0.94	0.89	0.92	3.46	1.35	1.36	1.33	1.26	1.27	1.36							
160	1.05	1.04	0.99	0.94	0.97	2.21	1.34	1.35	1.32	1.25	1.26	1.34							
165	1.10	1.09	1.05	1.00	1.01	1.41	1.32	1.33	1.30	1.24	1.24	1.31							
170	1.15	1.13	1.10	1.05	1.05	1.17	1.30	1.31	1.28	1.21	1.21	1.29							
175	1.18	1.17	1.15	1.10	1.09	1.20	1.25	1.27	1.24	1.17	1.16	1.25							
180	1.21	1.21	1.19	1.14	1.12	1.21	1.21	1.22	1.18	1.13	1.13	1.21							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2023-11-03

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: