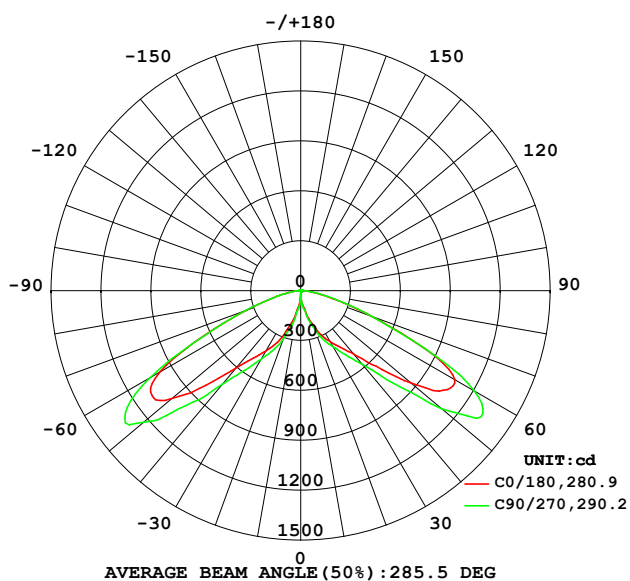
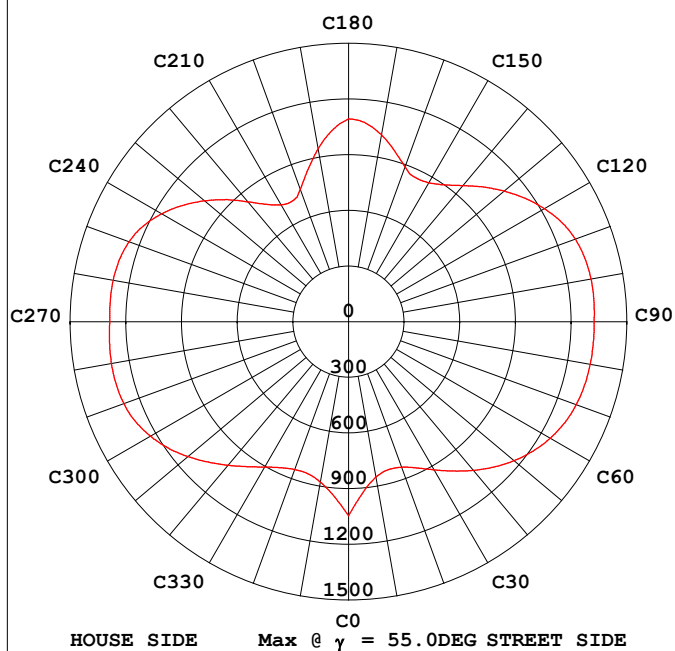


STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:120.28V I:0.1936A P:23.095W PF:0.9919 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2879.41x1 lm		
NAME: HL-BL-MW-MCCT-24W-DC	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.: 1
MFR.: HAVELLS	SUR.: 0.18	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 124.68 lm/W			
MODEL	HL-BL-MW-MCCT-24W-DC	I _{max} (cd)	1323	η street_up (%)	0.6
NOMINAL POWER (W)	24	LOR (%)	100.0	η street_down (%)	49.9
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	2879	η house_up (%)	0.7
NOMINAL FLUX (lm)	2879.41	MAXIMUM @ (C, γ)	90, 55.0	η house_down (%)	48.8
LAMPS INSIDE	1	η up (%)	1.3	76 FLASHAREA (m2)	
TEST VOLTAGE (V)	120	η down (%)	98.7	SLI	

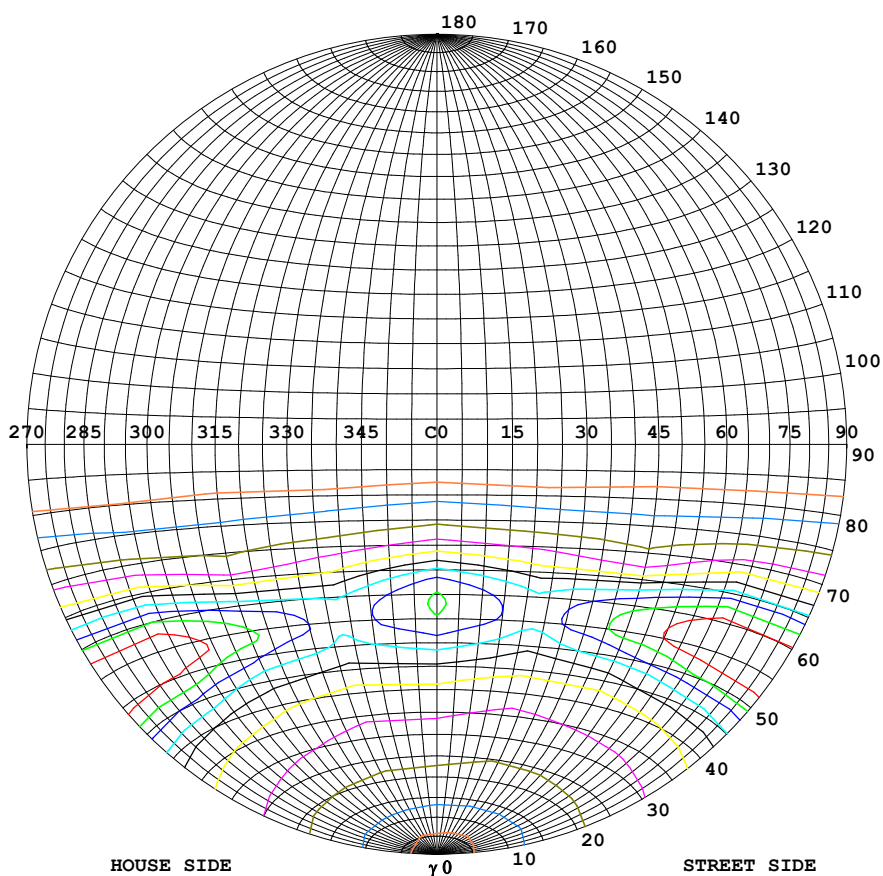
INTENSITY DISTRIBUTION DIAGRAM
IN C PLANSMAX INTENSITY CONE SURFACE
DISTRIBUTION DIAGRAM

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2025-08-15

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity: 65.0%
Test Distance: 9.630m [K=1.0000]
Remarks:

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:120.28V I:0.1936A P:23.095W PF:0.9919 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2879.41x1 lm		
NAME: BR06E-24L-S2D3C3	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.18	Shielding Angle:



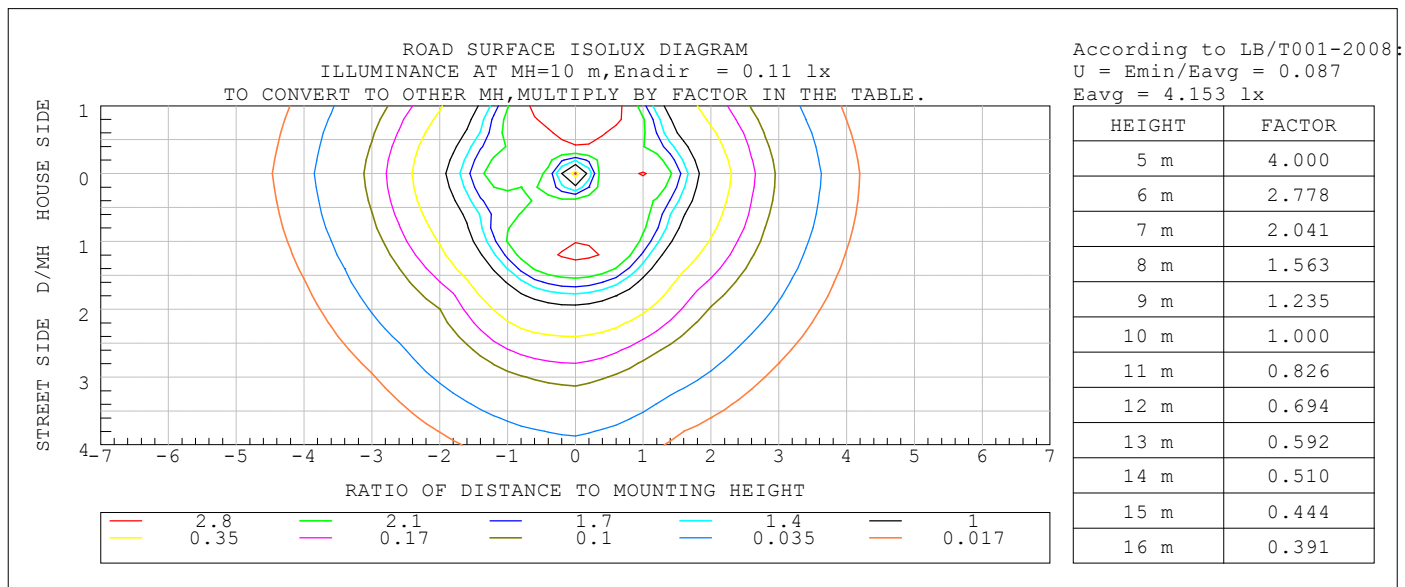
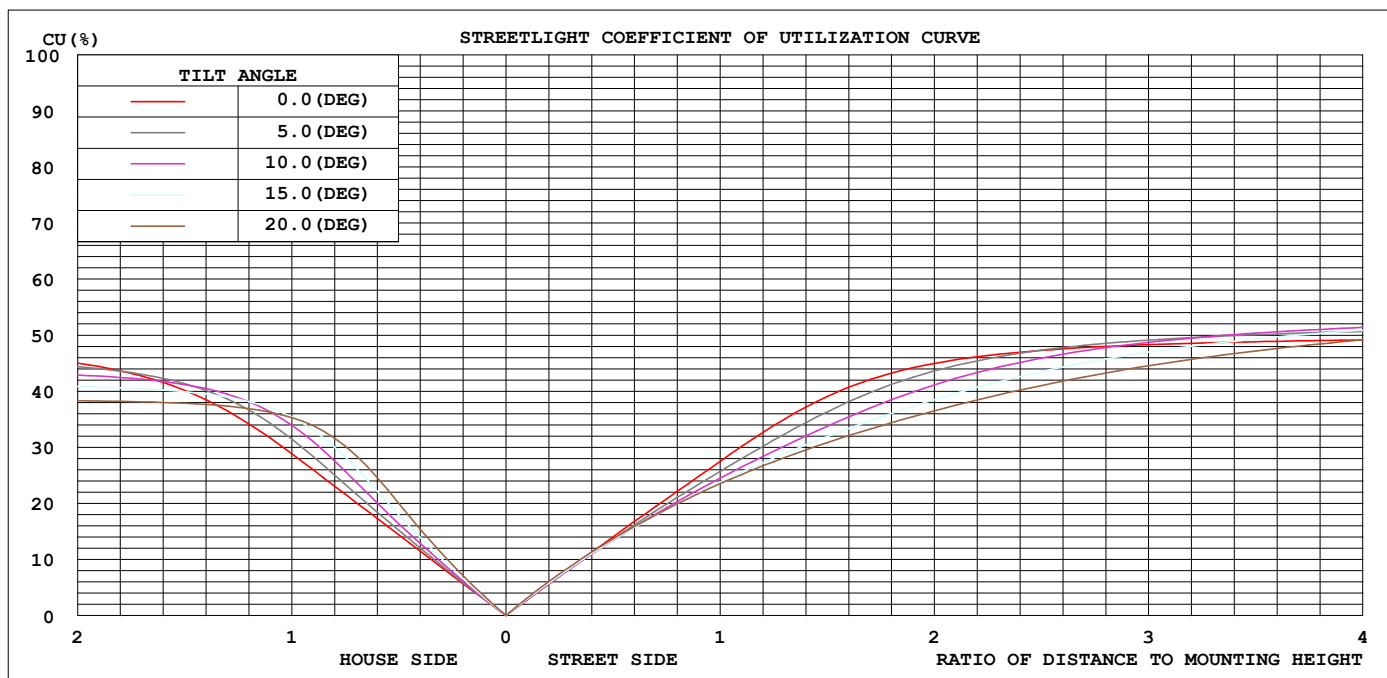
Classification:

IES:Type V - Very Short
CIE:Broad - Short
IES:Cut-off
CIE:Semi-cut-off
Max.At80:37.87cd/klm
Max.At90:2.143cd/klm
Max.80-90:37.87cd/klm
NRB 5101:Limited[7.0%]

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	1323
90%	1191
80%	1059
70%	926
60%	794
50%	662
40%	529
30%	397
20%	265
10%	132
5%	66

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2025-08-15

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity:65.0%
Test Distance:9.630m [K=1.0000]
Remarks:

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2025-08-15

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity: 65.0%
Test Distance: 9.630m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

Test:U:120.28V I:0.1936A P:23.095W PF:0.9919 Freq:60.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2879.41x1 lm		
NAME: BR06E-24L-S2D3C3	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.18	Shielding Angle:

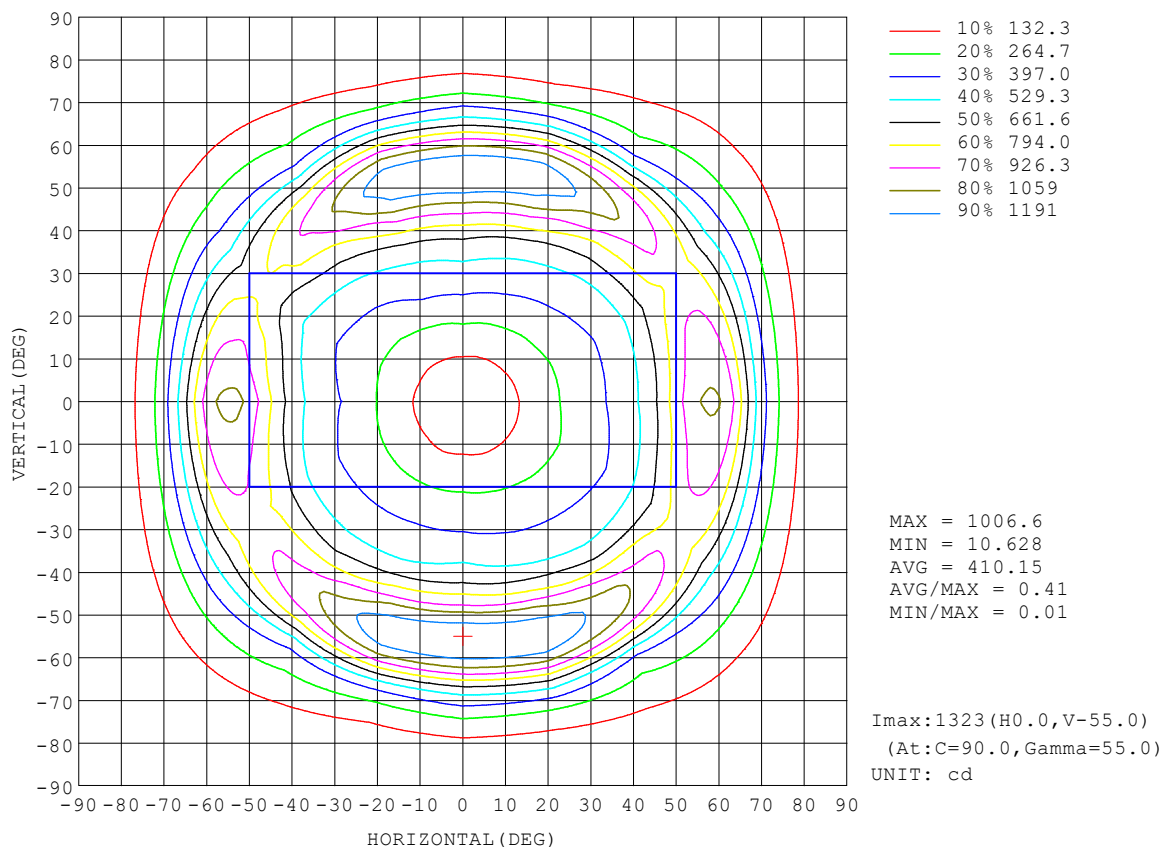
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	99.29	94.11	110.5	106.8	109.4	110.3	124.7	106.8	0- 10	7.498	7.498	0.26,0.26
20	221.0	205.1	239.7	236.6	260.9	259.8	312.0	248.2	10- 20	52.71	60.21	2.09,2.09
30	354.0	337.9	389.7	381.9	419.0	403.1	475.9	400.5	20- 30	151.6	211.8	7.36,7.36
40	501.8	471.1	581.6	532.6	608.1	590.9	737.5	552.9	30- 40	295.4	507.3	17.6,17.6
50	864.2	858.9	1105	893.7	1007	942.4	1231	940.6	40- 50	581.8	1089	37.8,37.8
60	1069	1014	1208	844.5	975.8	644.5	1047	859.1	50- 60	925.8	2015	70,70
70	454.1	278.9	462.1	269.4	350.8	221.1	357.3	251.6	60- 70	602.7	2618	90.9,90.9
80	105.7	90.06	109.0	80.10	77.13	60.88	74.50	79.62	70- 80	190.6	2808	97.5,97.5
90	3.254	5.172	4.637	5.042	3.543	6.170	5.703	6.099	80- 90	35.03	2843	98.7,98.7
100	4.047	5.106	5.594	5.501	5.154	7.189	7.660	7.059	90-100	5.989	2849	99,99
110	5.449	5.825	7.527	5.548	6.749	7.216	9.660	7.868	100-110	6.988	2856	99.2,99.2
120	6.390	4.055	6.797	4.554	5.987	5.346	8.159	5.424	110-120	6.560	2863	99.4,99.4
130	6.027	5.261	5.347	5.455	6.430	5.586	5.158	5.722	120-130	5.102	2868	99.6,99.6
140	5.742	5.495	5.119	5.755	5.400	5.048	4.639	4.677	130-140	4.482	2872	99.8,99.8
150	4.989	5.022	5.703	5.514	4.347	4.600	4.684	4.372	140-150	3.151	2876	99.9,99.9
160	4.879	5.119	5.650	5.373	4.055	4.269	4.399	4.172	150-160	2.262	2878	99.9,99.9
170	4.230	4.398	4.678	4.432	3.652	3.679	3.770	3.717	160-170	1.264	2879	100,100
180	3.678	3.724	3.795	3.704	3.678	3.717	3.808	3.698	170-180	0.3729	2879	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2025-08-15

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity:65.0%
Test Distance:9.630m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

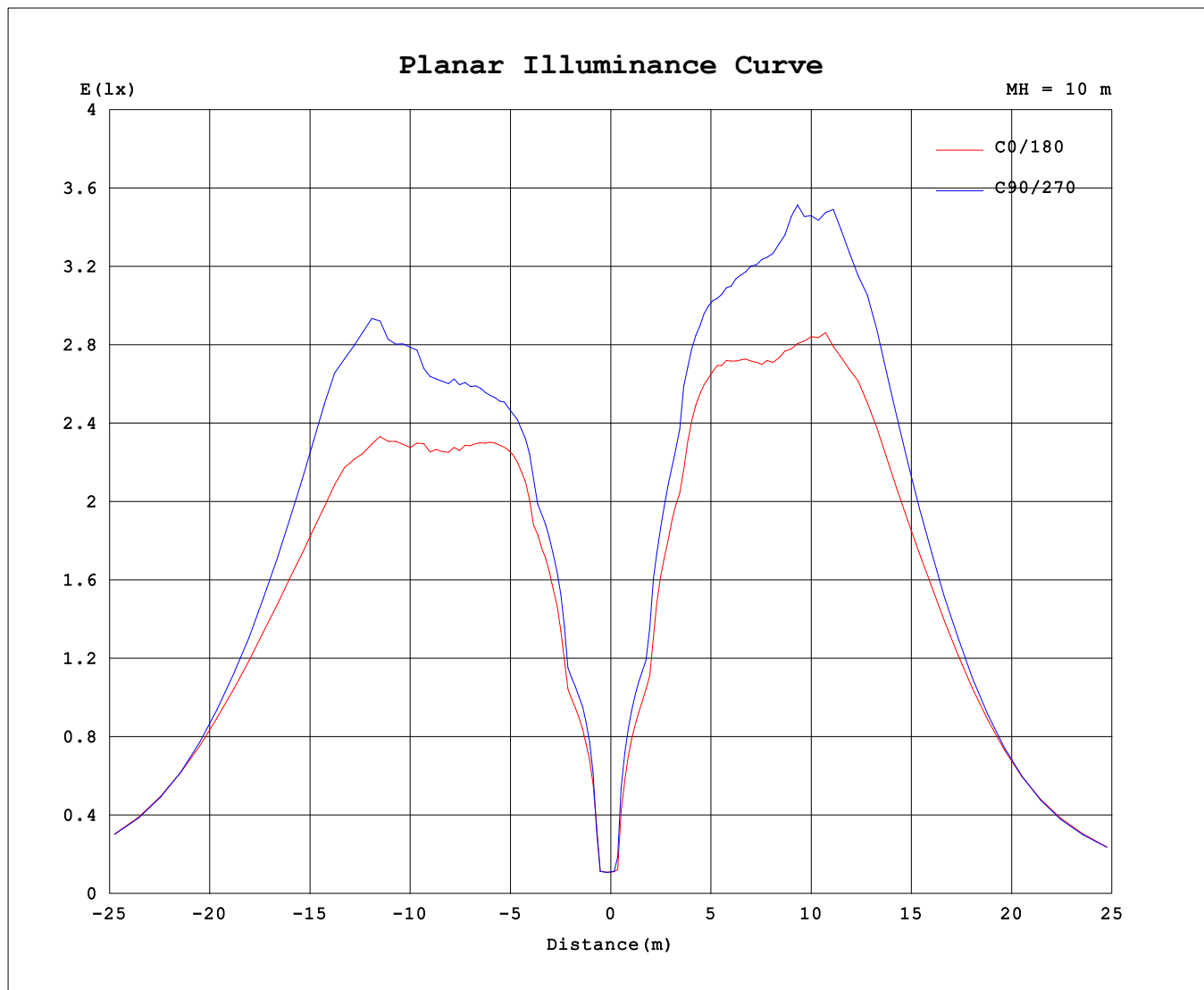
Test:U:120.28V I:0.1936A P:23.095W PF:0.9919 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2879.41x1 lm		
NAME: BR06E-24L-S2D3C3	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.18	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2025-08-15

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity:65.0%
Test Distance:9.630m [K=1.0000]
Remarks:

Planar Illuminance Curve



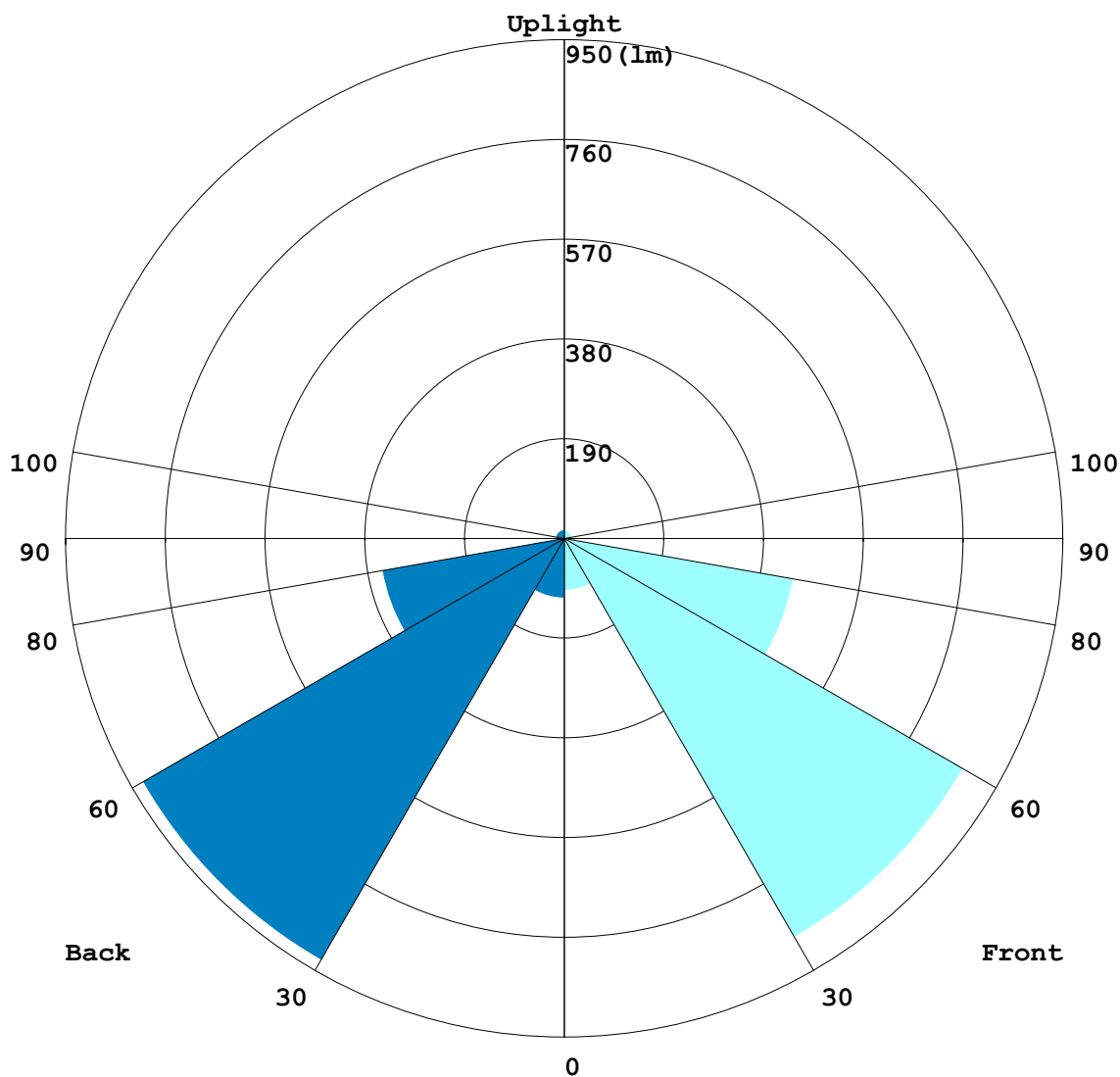
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2025-08-15

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity: 65.0%
Test Distance: 9.630m [K=1.0000]
Remarks:

LCS REPORT

Test:U:120.28V I:0.1936A P:23.095W PF:0.9919 Freq:60.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2879.41x1 lm		
NAME: BR06E-24L-S2D3C3	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.18	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2025-08-15

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity:65.0%
Test Distance:9.630m [K=1.0000]
Remarks:

BUG REPORT

Test:U:120.28V I:0.1936A P:23.095W PF:0.9919 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2879.41x1 lm		
NAME: BR06E-24L-S2D3C3	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.18	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	98.689	3.4
FM - Front-Medium(30-60)	876.4	30.4
FH - Front-High(60-80)	442.09	15.4
FVH - Front-Very High(80-90)	20.184	0.7
Total Forward Light	1454.4	50.5

BL - Back-Low(0-30)	113.16	3.9
BM - Back-Medium(30-60)	926.65	32.2
BH - Back-High(60-80)	351.22	12.2
BVH - Back-Very High(80-90)	14.846	0.5
Total Back Light	1425	49.5

UL - Uplight-Low(90-100)	5.9888	0.2
UH - Uplight-High(100-180)	30.183	1.0
Total Up Light	36.172	1.3

BUG(Back,Up,Glare) Rating	B1-U2-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	1405.9	19.109	1425
Street Side	1437.4	17.063	1454.4

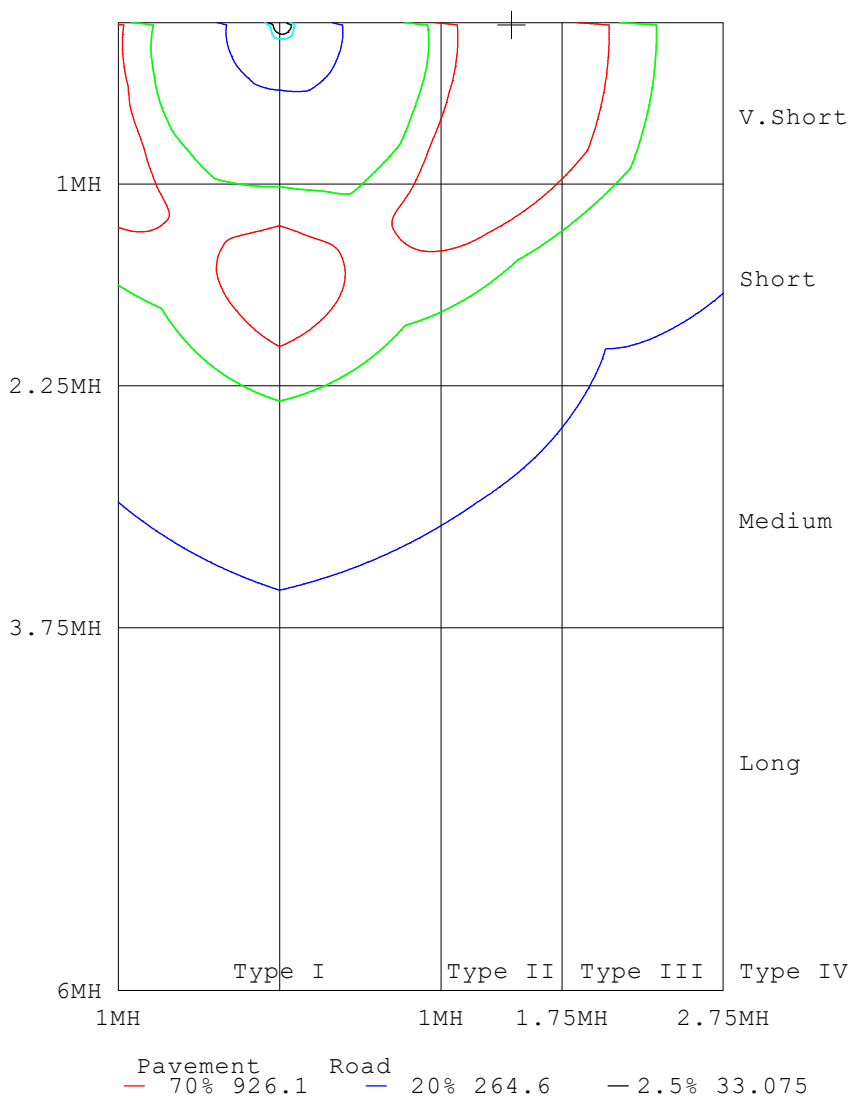
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2025-08-15

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity:65.0%
Test Distance:9.630m [K=1.0000]
Remarks:

ROAD ISOCANDELA REPORT

Test:U:120.28V I:0.1936A P:23.095W PF:0.9919 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2879.41x1 lm		
NAME: BR06E-24L-S2D3C3	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.18	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2025-08-15

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity:65.0%
Test Distance:9.630m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.28V I:0.1936A P:23.095W PF:0.9919 Freq:60.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:2879.41x1 lm		
NAME: BR06E-24L-S2D3C3	TYPE: 24W	WEIGHT:
SPEC.: 4000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.18	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	11.1	11.1	11.0	11.0	11.1	11.1	11.1	11.1	11.1	11.1	11.0	11.0	11.1	11.1	11.1	11.1			
5	56.3	49.7	53.0	55.2	62.4	64.1	66.2	72.0	70.9	73.6	72.8	81.0	85.2	85.9	73.6	61.5			
10	99.3	96.2	94.1	101	111	101	107	113	109	110	110	116	125	120	107	102			
15	163	149	160	168	182	182	182	189	190	179	191	209	220	213	188	168			
20	221	202	205	222	240	233	237	252	261	254	260	298	312	288	248	223			
25	296	269	278	304	325	326	317	321	349	312	330	388	397	371	329	298			
30	354	321	338	365	390	391	382	378	419	367	403	458	476	442	401	352			
35	416	375	404	428	471	457	455	441	494	430	488	549	583	521	469	415			
40	502	445	471	521	582	551	533	534	608	512	591	707	737	658	553	496			
45	644	578	608	727	789	772	670	671	804	612	746	959	978	901	714	631			
50	864	714	859	1042	1105	1086	894	794	1007	697	942	1208	1231	1176	941	764			
55	1046	849	1108	1298	1323	1287	1028	863	1093	728	931	1244	1287	1282	1070	856			
60	1069	812	1014	1227	1208	1142	845	767	976	603	645	961	1047	1058	859	777			
65	820	595	598	846	823	700	457	540	639	407	340	539	634	619	444	532			
70	454	371	279	446	462	336	269	322	351	249	221	264	357	302	252	327			
75	234	188	169	204	240	158	149	160	174	125	120	130	173	139	143	172			
80	106	89.8	90.1	94.3	109	79.5	80.1	70.4	77.1	54.8	60.9	60.8	74.5	67.8	79.6	83.9			
85	37.2	30.3	36.6	36.2	39.6	30.1	28.3	21.7	23.2	17.8	20.2	20.2	24.8	23.4	28.8	28.2			
90	3.25	5.10	5.17	4.92	4.64	4.75	5.04	4.97	3.54	5.64	6.17	5.92	5.70	5.87	6.10	6.07			
95	3.35	4.77	4.83	4.88	4.81	5.00	5.14	4.85	4.29	5.92	6.67	6.75	6.65	6.68	6.53	6.22			
100	4.05	4.86	5.11	5.50	5.59	5.64	5.50	4.88	5.15	6.04	7.19	7.60	7.66	7.55	7.06	6.49			
105	4.75	4.99	5.66	6.25	6.49	6.51	6.13	5.07	5.98	6.21	7.89	8.55	8.72	8.47	7.74	6.75			
110	5.45	5.37	5.82	7.09	7.53	7.49	5.55	5.46	6.75	6.44	7.22	9.40	9.66	9.27	7.87	7.08			
115	6.12	5.66	4.21	6.95	8.01	7.43	4.07	4.78	6.87	5.64	5.37	8.98	9.84	8.85	6.09	7.20			
120	6.39	5.53	4.06	5.42	6.80	5.83	4.55	4.75	5.99	5.49	5.35	6.96	8.16	6.87	5.42	6.73			
125	6.19	5.74	4.85	4.72	5.17	5.14	5.36	5.86	6.39	6.29	5.73	5.69	5.83	5.50	5.72	6.50			
130	6.03	6.61	5.26	4.85	5.35	5.47	5.46	6.84	6.43	6.85	5.59	5.38	5.16	5.08	5.72	6.83			
135	6.49	7.15	5.71	4.77	5.65	5.22	5.81	7.09	6.58	6.85	5.52	4.91	5.28	4.71	5.77	6.85			
140	5.74	6.18	5.49	4.85	5.12	5.24	5.75	6.19	5.40	5.67	5.05	4.75	4.64	4.58	4.68	5.66			
145	5.02	5.25	5.14	5.00	5.44	5.43	5.55	5.44	4.46	4.71	4.75	4.71	4.65	4.43	4.53	4.65			
150	4.99	4.98	5.02	5.33	5.70	5.70	5.51	5.35	4.35	4.54	4.60	4.68	4.68	4.44	4.37	4.32			
155	5.04	5.03	5.16	5.58	5.81	5.79	5.54	5.28	4.24	4.39	4.48	4.63	4.61	4.46	4.28	4.26			
160	4.88	4.92	5.12	5.49	5.65	5.58	5.37	5.05	4.05	4.14	4.27	4.37	4.40	4.32	4.17	4.12			
165	4.59	4.66	4.84	5.15	5.22	5.12	4.95	4.70	3.83	3.89	3.94	4.00	4.05	4.00	3.94	3.95			
170	4.23	4.29	4.40	4.65	4.68	4.58	4.43	4.26	3.65	3.68	3.68	3.71	3.77	3.74	3.72	3.77			
175	3.90	3.96	3.98	4.10	4.13	4.06	3.98	3.93	3.59	3.64	3.61	3.62	3.67	3.64	3.63	3.70			
180	3.68	3.72	3.72	3.76	3.80	3.75	3.70	3.73	3.68	3.72	3.72	3.76	3.81	3.74	3.70	3.72			

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2025-08-15

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Humidity:65.0%
Test Distance:9.630m [K=1.0000]
Remarks: