

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P731191

Luminaire Tested: **HBLED-LD5-60SE-W-FLI-UNV-L850**

Issue Date: 11/13/2023

Test Information

Test Method: LM-79-08
Report Number: P731191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26703)
Test Lab: INNOVATION CENTER
Issue Date: 11/13/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBLED-LD5-60SE-W-FLI-UNV-L850
Description: 60000 LUMEN, SE HBLED WITH WIDE DISTRIBUTION AND FROSTED LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 53818.0 lumens
Efficiency: N/A
Efficacy: 146.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')
CIE Type: Direct

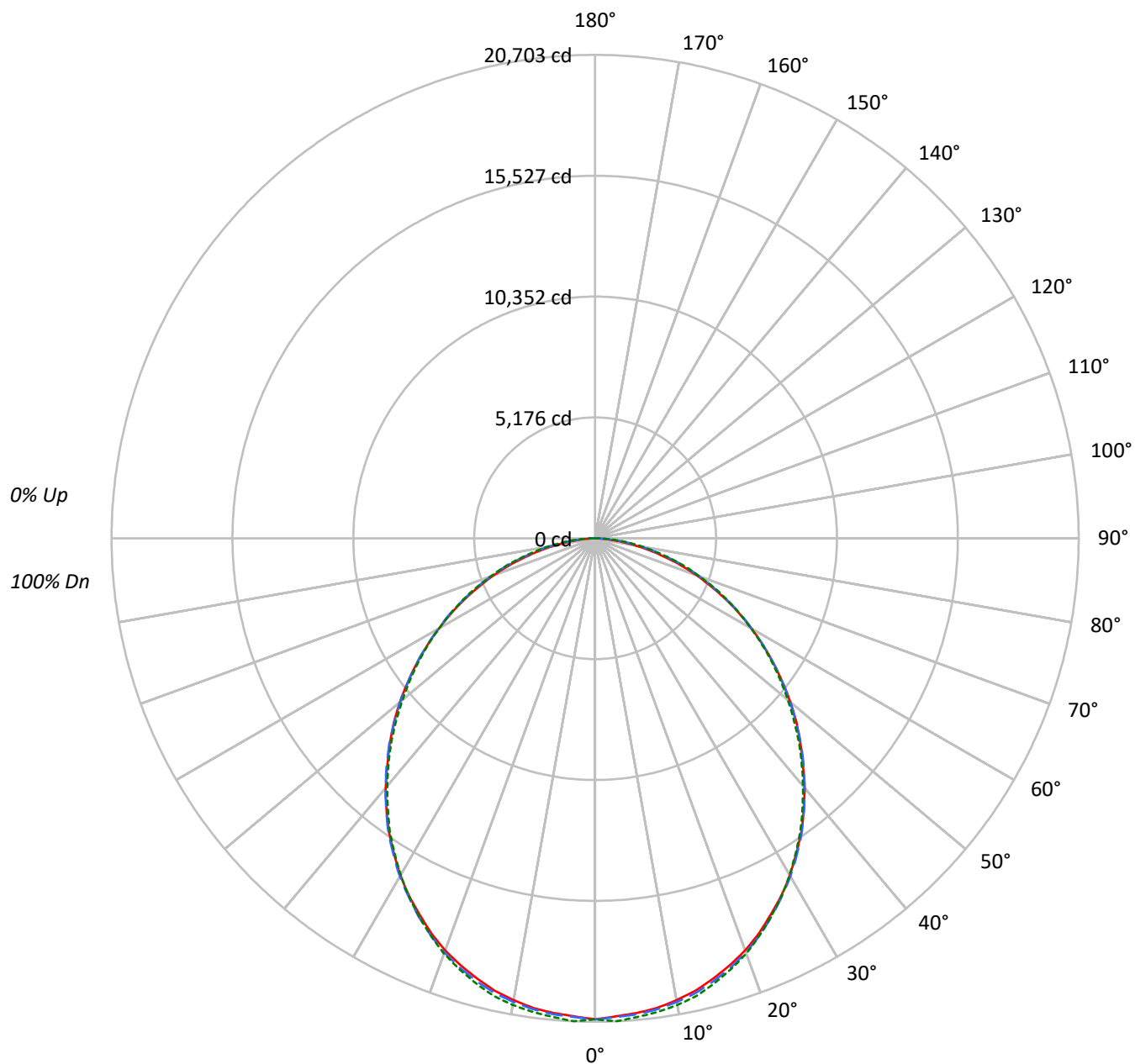
Input Watts (W): 367
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P731191

CATALOG NUMBER: HBLED-LD5-60SE-W-FLI-UNV-L850

Luminous Intensity Polar Plot





TEST NUMBER: P731191

CATALOG NUMBER: HBLED-LD5-60SE-W-FLI-UNV-L850

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71		
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60		
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	53	51		
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	42	69	57	48	42	55	47	42	53	47	42	52	46	41	39		
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31		
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28		
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33265	33265	33265
5°	33076	33169	33359
10°	32926	33059	33274
15°	32637	32814	32974
20°	32267	32422	32516
25°	31670	31849	31803
30°	31086	31169	31042
35°	30316	30394	30200
40°	29405	29405	29178
45°	28376	28454	28164
50°	27401	27355	27013
55°	26215	26219	25983
60°	24946	24975	24878
65°	23511	23746	23806
70°	21715	22310	22334
75°	19191	20434	20752
80°	15740	17896	18908
85°	10923	15026	16990



TEST NUMBER: P731191

CATALOG NUMBER: HBLED-LD5-60SE-W-FLI-UNV-L850

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1948.5	3.6
10°-20°	5543.2	10.3
20°-30°	8237.5	15.3
30°-40°	9631.8	17.9
40°-50°	9603.1	17.8
50°-60°	8332.0	15.5
60°-70°	6154.1	11.4
70°-80°	3445.6	6.4
80°-90°	919.4	1.7
90°-100°	2.8	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	15729.2	29.2
0°-40°	25361.0	47.1
0°-60°	43296.1	80.4
0°-90°	53815.2	100.0
90°-120°	2.8	0.0
90°-150°	2.8	0.0
90°-180°	3.0	0.0
0°-180°	53818.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	20603	20603	20603	20603	20603	
5°	20408	20536	20465	20556	20582	###
15°	19525	19661	19631	19725	19727	5507
25°	17777	17920	17878	17917	17852	8196
35°	15381	15515	15420	15417	15322	9607
45°	12427	12560	12462	12410	12334	9594
55°	9313	9377	9314	9298	9230	8328
65°	6154	6214	6216	6247	6231	6086
75°	3076	3168	3276	3299	3327	3276
85°	590	713	811	883	917	716
90°	0	13	16	35	33	24
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



TEST NUMBER: P731191

CATALOG NUMBER: HBLED-LD5-60SE-W-FLI-UNV-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	20603.0	20603.0	20603.0	20603.0	20603.0
2.5°	20490.4	20612.4	20527.0	20608.3	20702.8
5°	20407.8	20536.4	20465.4	20555.8	20582.1
7.5°	20287.4	20411.9	20343.7	20434.1	20461.6
10°	20082.9	20218.0	20164.2	20266.4	20295.2
12.5°	19844.5	19971.5	19936.2	20055.3	20075.0
15°	19524.8	19661.2	19630.9	19725.3	19726.6
17.5°	19171.0	19299.3	19277.1	19350.6	19347.8
20°	18779.4	18916.8	18869.8	18949.6	18924.6
22.5°	18315.5	18462.2	18403.1	18470.1	18407.2
25°	17776.9	17919.8	17877.9	17917.1	17851.7
27.5°	17255.5	17386.5	17299.9	17347.1	17277.7
30°	16673.7	16785.0	16718.4	16734.0	16650.2
32.5°	16019.9	16152.2	16070.9	16068.4	15979.3
35°	15380.6	15515.4	15420.0	15417.2	15321.7
37.5°	14673.0	14798.8	14686.2	14692.7	14581.4
40°	13951.1	14059.9	13951.1	13945.8	13843.8
42.5°	13167.5	13311.7	13212.2	13223.9	13087.7
45°	12427.4	12559.7	12461.5	12410.3	12334.2
47.5°	11689.8	11747.4	11666.1	11653.0	11545.7
50°	10908.8	10952.0	10890.4	10874.7	10754.3
52.5°	10101.8	10176.5	10097.7	10076.8	9997.0
55°	9312.9	9377.1	9314.2	9298.5	9230.4
57.5°	8519.0	8602.9	8538.7	8522.8	8468.0
60°	7725.1	7749.9	7734.2	7757.7	7704.2
62.5°	6936.3	6993.9	7012.3	7005.7	6963.8
65°	6154.0	6214.3	6215.6	6247.2	6231.3
67.5°	5353.5	5432.1	5454.5	5487.1	5501.5
70°	4600.0	4660.4	4726.0	4745.5	4731.1
72.5°	3841.5	3938.4	4011.9	4028.8	4090.5
75°	3076.4	3168.0	3275.6	3299.1	3326.6
77.5°	2366.3	2488.0	2585.0	2616.5	2650.6
80°	1692.8	1827.7	1924.7	1967.8	2033.5
82.5°	1111.1	1248.7	1346.9	1390.1	1470.1
85°	589.6	712.8	811.1	883.0	917.1
87.5°	174.2	279.0	335.3	356.3	386.6
90°	0.0	13.1	15.7	35.4	32.8
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P731191

CATALOG NUMBER: HBLED-LD5-60SE-W-FLI-UNV-L850

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - 90°-270°







107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)