

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: FAIL-SAFE

Report Number: P183399

Luminaire Tested: **MAO-G-24-4-LD4-2-HI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183399  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34511)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MAO-G-24-4-LD4-2-HI  
Description:  
Light Source: 2UT217042A8404A  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8233.5 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

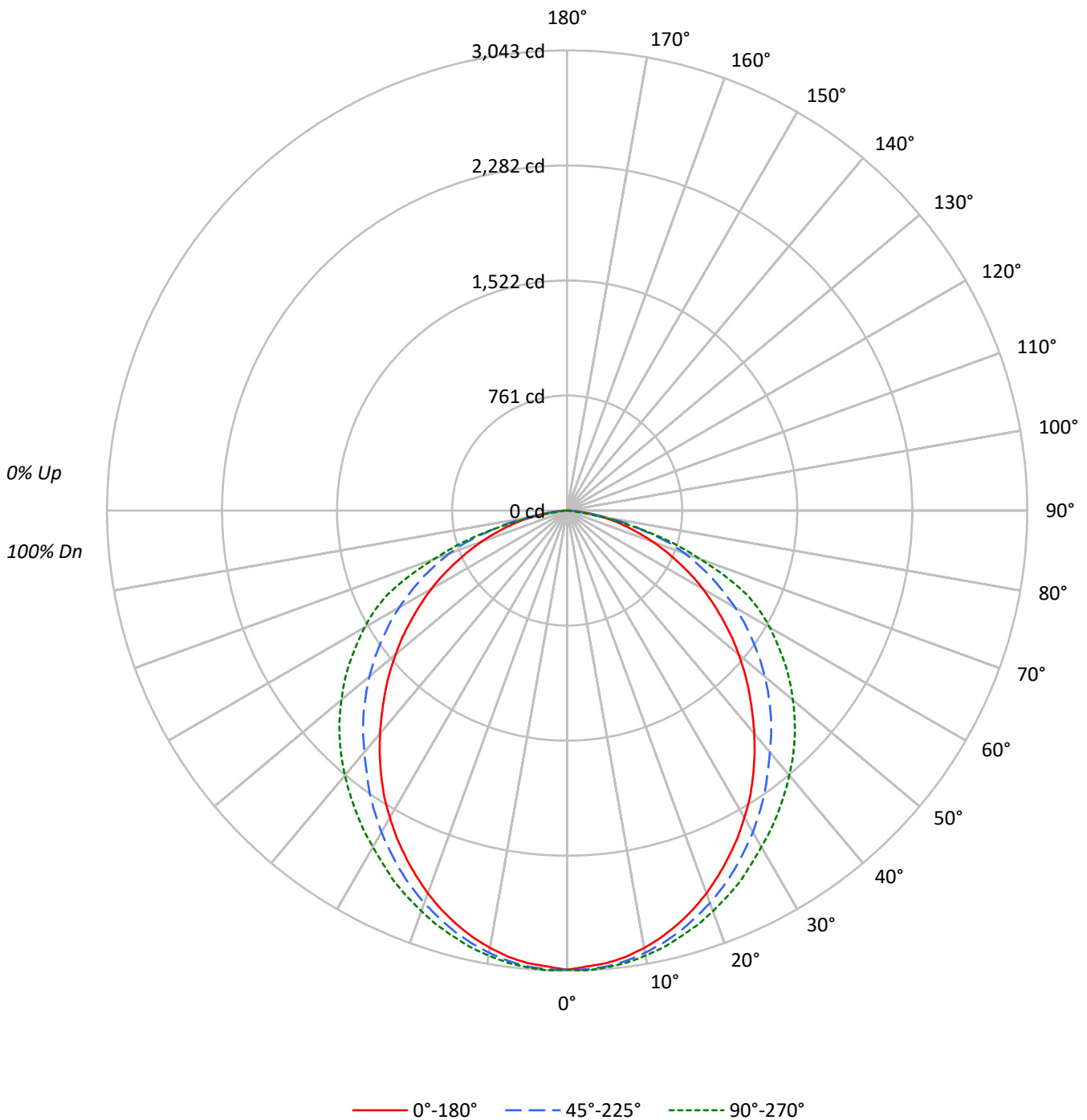
Input Watts (W): 90  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20			
RC	80				70				50				30				10	0		
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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	84	79	97	89	83	78	86	80	76		82	78	74		79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64		73	67	62		70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54		65	58	53		62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47		58	51	46		56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41		52	46	41		51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36		48	41	36		46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32		44	37	32		43	37	32	30
9	57	43	35	29	55	43	35	29	42	34	29		40	34	29		39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27		37	31	26		37	31	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8171	8171	8171
5°	8112	8174	8191
10°	8024	8115	8166
15°	7886	8025	8118
20°	7713	7909	8070
25°	7504	7775	8034
30°	7284	7633	7982
35°	7039	7483	7995
40°	6760	7330	8031
45°	6478	7245	8099
50°	6195	7143	8161
55°	5889	7020	8239
60°	5582	6901	8333
65°	5188	6735	8337
70°	4759	6508	7326
75°	4192	5705	5878
80°	3446	4187	3124
85°	2504	1732	963



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	286.7	3.5
10°-20°	811.2	9.9
20°-30°	1205.8	14.6
30°-40°	1428.2	17.3
40°-50°	1472.5	17.9
50°-60°	1345.2	16.3
60°-70°	1045.3	12.7
70°-80°	547.9	6.7
80°-90°	90.8	1.1
90°-100°	0.0	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°	2303.6	28.0
0°-40°	3731.8	45.3
0°-60°	6549.5	79.5
0°-90°	8233.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8233.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3036	3036	3036	3036	3036	
5°	3003	3011	3026	3032	3032	285
15°	2831	2847	2880	2910	2914	797
25°	2527	2554	2619	2681	2706	1164
35°	2143	2180	2278	2384	2434	1340
45°	1702	1760	1904	2053	2128	1314
55°	1255	1340	1496	1673	1756	1124
65°	815	904	1058	1232	1309	809
75°	403	464	549	578	565	431
85°	81	87	56	40	31	101
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3036.4	3036.4	3036.4	3036.4	3036.4
2.5°	3017.7	3023.9	3036.4	3042.6	3042.6
5°	3003.1	3011.4	3026.0	3032.2	3032.2
7.5°	2976.1	2984.4	3003.1	3015.6	3015.6
10°	2936.6	2949.1	2969.9	2986.5	2988.6
12.5°	2888.8	2903.4	2928.3	2951.2	2957.4
15°	2830.6	2847.3	2880.5	2909.6	2913.8
17.5°	2766.2	2784.9	2822.3	2859.7	2872.2
20°	2693.5	2714.2	2762.0	2805.7	2818.2
22.5°	2612.4	2637.3	2693.5	2747.5	2764.1
25°	2527.2	2554.2	2618.6	2681.0	2705.9
27.5°	2439.9	2469.0	2537.6	2610.3	2635.3
30°	2344.3	2375.5	2456.5	2535.5	2568.8
32.5°	2248.7	2279.9	2367.2	2458.6	2504.3
35°	2142.7	2180.1	2277.8	2383.8	2433.7
37.5°	2036.7	2080.4	2178.0	2309.0	2360.9
40°	1924.5	1972.3	2086.6	2230.0	2286.1
42.5°	1812.3	1864.2	1997.2	2144.8	2209.2
45°	1702.1	1760.3	1903.7	2053.3	2128.2
47.5°	1594.0	1650.2	1806.0	1966.1	2040.9
50°	1479.7	1542.1	1706.3	1876.7	1949.4
52.5°	1371.7	1448.6	1604.4	1776.9	1855.9
55°	1255.3	1340.5	1496.4	1673.0	1756.2
57.5°	1145.1	1234.5	1392.5	1571.2	1650.2
60°	1037.1	1122.3	1282.3	1463.1	1548.3
62.5°	926.9	1014.2	1168.0	1348.8	1438.2
65°	814.7	904.1	1057.8	1232.4	1309.3
67.5°	706.6	789.7	941.5	1103.6	1128.5
70°	604.8	675.4	827.2	920.7	931.1
72.5°	500.9	569.5	702.5	739.9	762.7
75°	403.2	463.5	548.7	577.8	565.3
77.5°	315.9	363.7	415.7	394.9	374.1
80°	222.4	257.7	270.2	232.8	201.6
82.5°	147.6	168.3	143.4	93.5	62.3
85°	81.1	87.3	56.1	39.5	31.2
87.5°	31.2	33.3	24.9	18.7	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)