

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: P183405

Luminaire Tested: **MAO-G-24-4-LD4-3-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183405
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34512)
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-LD4-3-STD
Description:
Light Source: 2UT217042A8404A
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10005.7 lumens
Efficiency: N/A
Efficacy: 96.4 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

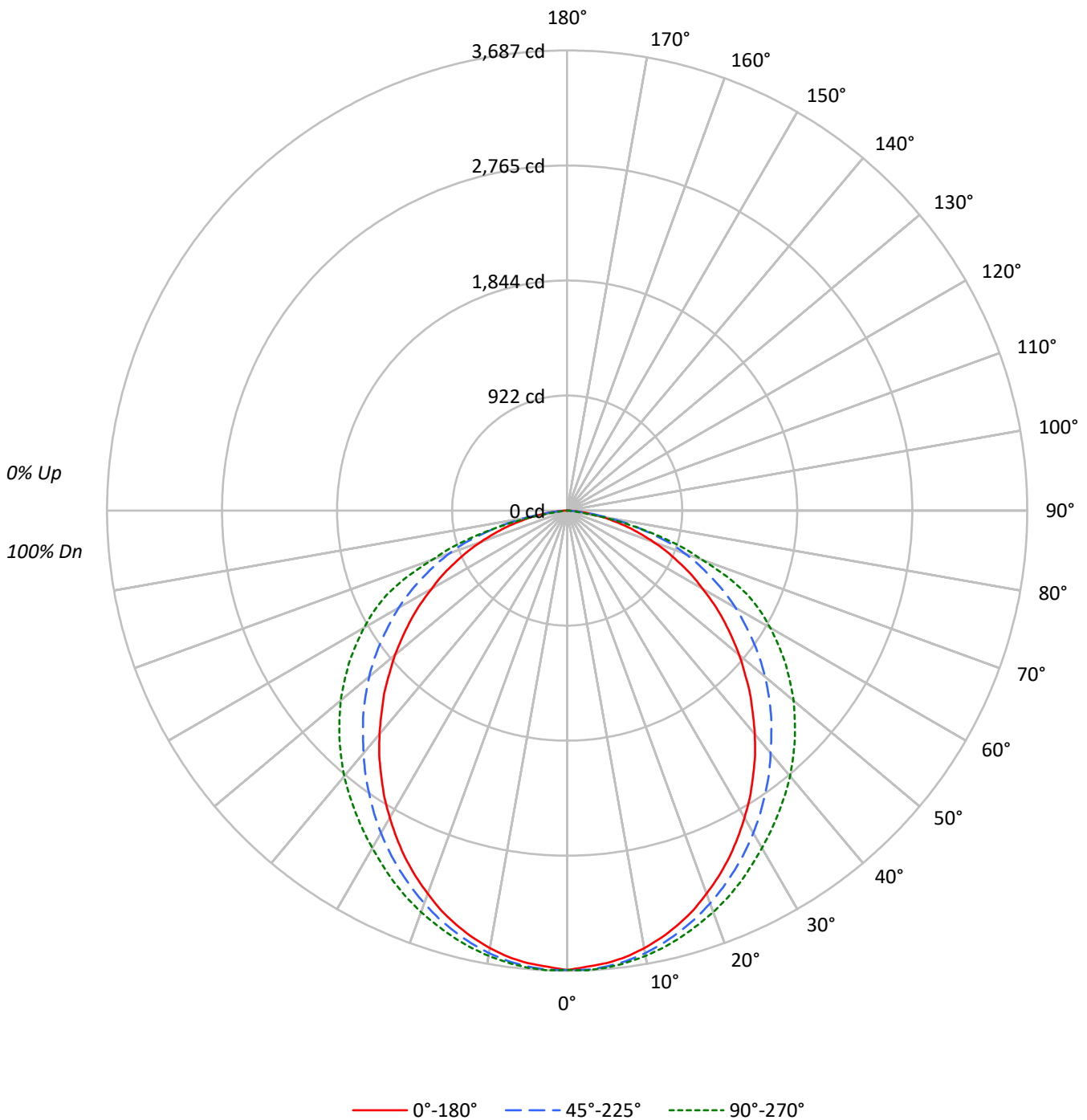
Input Watts (W): 103.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	63	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	50
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	47	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	41	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°	9904	9904	9904
5°	9832	9905	9928
10°	9728	9839	9900
15°	9570	9725	9853
20°	9352	9590	9803
25°	9114	9436	9752
30°	8828	9270	9701
35°	8533	9089	9706
40°	8215	8910	9760
45°	7889	8790	9820
50°	7537	8671	9918
55°	7177	8518	10011
60°	6748	8388	10109
65°	6325	8167	10150
70°	5805	7895	9013
75°	5137	6985	7442
80°	4274	5218	3907
85°	2979	2143	1201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.5	3.5
10°-20°	983.7	9.8
20°-30°	1463.6	14.6
30°-40°	1734.9	17.3
40°-50°	1787.0	17.9
50°-60°	1632.0	16.3
60°-70°	1271.0	12.7
70°-80°	674.4	6.7
80°-90°	111.5	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°	2794.9	27.9
0°-40°	4529.8	45.3
0°-60°	7948.8	79.4
0°-90°	10005.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10005.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3680	3680	3680	3680	3680	
5°	3640	3650	3667	3675	3675	345
15°	3435	3450	3491	3532	3537	967
25°	3070	3098	3178	3256	3284	1412
35°	2598	2648	2767	2897	2954	1625
45°	2073	2134	2310	2496	2580	1596
55°	1530	1624	1816	2036	2134	1366
65°	993	1095	1283	1499	1594	987
75°	494	567	672	714	716	524
85°	96	103	69	49	39	123
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3680.4	3680.4	3680.4	3680.4	3680.4
2.5°	3658.4	3666.9	3682.1	3688.9	3687.2
5°	3639.8	3650.0	3666.9	3675.4	3675.4
7.5°	3607.7	3617.8	3639.8	3653.4	3653.4
10°	3560.3	3573.8	3600.9	3621.2	3622.9
12.5°	3502.8	3518.0	3551.8	3578.9	3584.0
15°	3435.1	3450.3	3490.9	3531.5	3536.6
17.5°	3358.9	3375.8	3424.9	3470.6	3480.8
20°	3265.8	3291.2	3348.8	3404.6	3423.2
22.5°	3172.8	3198.2	3265.8	3335.2	3357.2
25°	3069.6	3098.3	3177.9	3255.7	3284.5
27.5°	2957.9	2996.8	3083.1	3171.1	3203.2
30°	2841.1	2883.4	2983.3	3083.1	3122.0
32.5°	2724.4	2768.4	2878.3	2988.3	3040.8
35°	2597.5	2648.2	2766.7	2897.0	2954.5
37.5°	2472.2	2526.4	2656.7	2802.2	2868.2
40°	2338.6	2394.4	2536.5	2702.4	2778.5
42.5°	2201.5	2264.1	2421.5	2600.8	2680.4
45°	2072.9	2133.8	2309.8	2495.9	2580.5
47.5°	1930.7	2001.8	2189.6	2387.6	2473.9
50°	1800.4	1873.2	2071.2	2275.9	2369.0
52.5°	1661.7	1753.1	1946.0	2155.8	2250.6
55°	1529.7	1624.5	1815.7	2035.7	2133.8
57.5°	1394.3	1490.8	1685.4	1905.4	2008.6
60°	1253.9	1355.4	1558.5	1776.8	1878.3
62.5°	1132.0	1225.1	1424.8	1636.3	1746.3
65°	993.3	1094.8	1282.6	1499.2	1594.0
67.5°	868.1	956.1	1145.6	1348.6	1389.3
70°	737.8	819.0	1003.4	1121.9	1145.6
72.5°	609.2	690.4	857.9	920.5	956.1
75°	494.1	566.9	671.8	714.1	715.8
77.5°	377.3	446.7	512.7	497.5	470.4
80°	275.8	324.9	336.7	287.7	252.1
82.5°	182.8	204.8	181.1	113.4	69.4
85°	96.5	103.2	69.4	49.1	38.9
87.5°	35.5	38.9	28.8	23.7	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)