

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: P183407

Luminaire Tested: **MAO-G-24-4-LD4-1-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183407
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34513)
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-LD4-1-STD
Description:
Light Source: 2UT217042A8404A
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3470.1 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

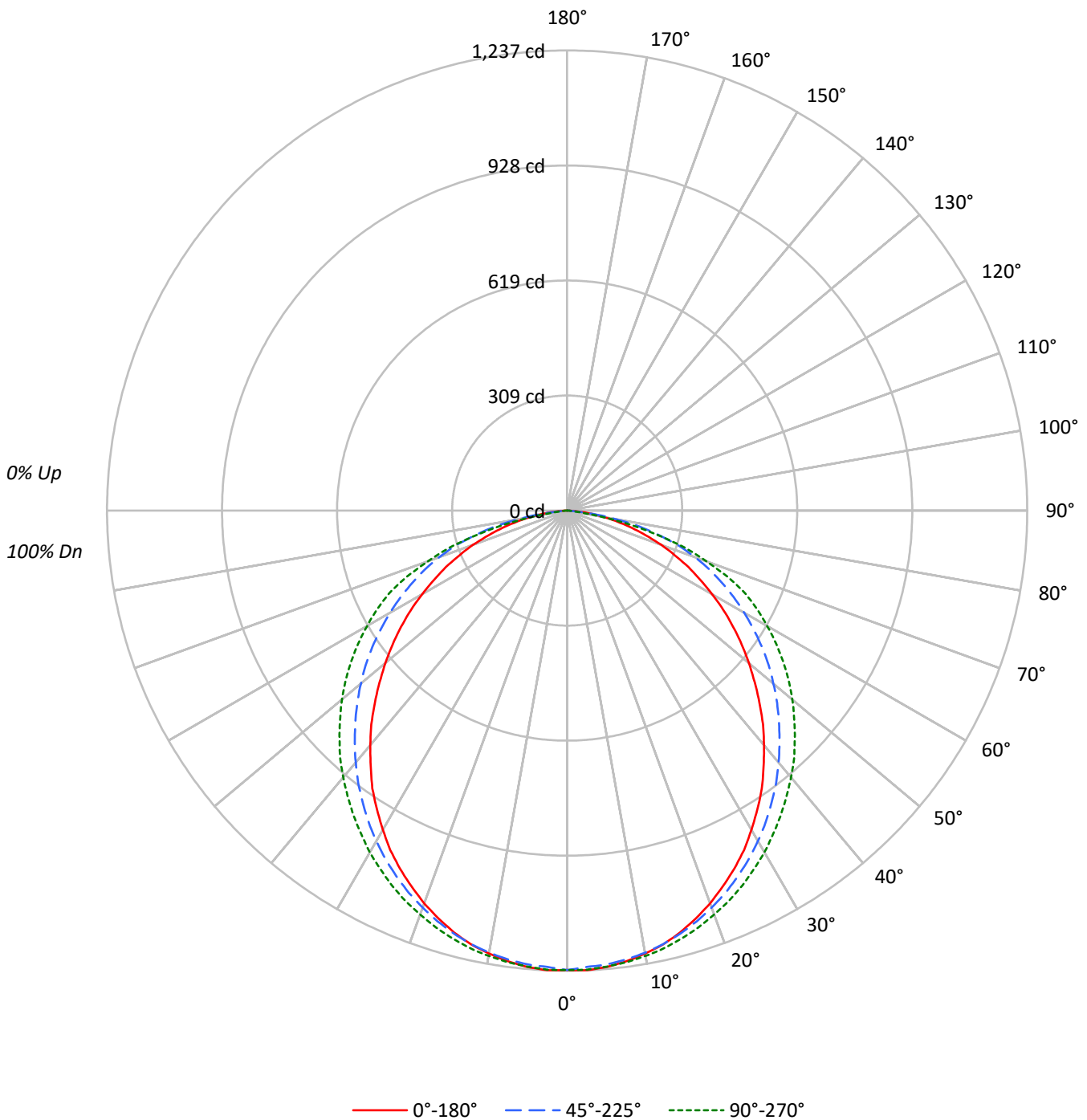
Input Watts (W): 34.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	92	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1662	1662	1662
5°	1663	1654	1662
10°	1652	1649	1661
15°	1635	1640	1658
20°	1609	1626	1654
25°	1577	1611	1652
30°	1539	1594	1648
35°	1499	1574	1644
40°	1446	1553	1645
45°	1391	1532	1647
50°	1334	1515	1655
55°	1278	1499	1664
60°	1212	1479	1672
65°	1146	1459	1685
70°	1060	1438	1566
75°	935	1333	1300
80°	789	1034	687
85°	565	252	176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.8	3.4
10°-20°	333.1	9.6
20°-30°	501.2	14.4
30°-40°	599.2	17.3
40°-50°	619.8	17.9
50°-60°	566.2	16.3
60°-70°	445.7	12.8
70°-80°	247.8	7.1
80°-90°	40.4	1.2
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°	951.0	27.4
0°-40°	1550.2	44.7
0°-60°	2736.1	78.8
0°-90°	3470.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3470.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1235	1235	1235	1235	1235	
5°	1231	1230	1225	1232	1230	117
15°	1174	1174	1177	1190	1190	331
25°	1062	1070	1085	1110	1113	489
35°	913	926	958	992	1001	569
45°	731	757	805	852	866	564
55°	545	576	639	691	709	487
65°	360	393	458	512	529	355
75°	180	213	256	260	250	191
85°	37	42	16	13	11	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1235.1	1235.1	1235.1	1235.1	1235.1
2.5°	1236.8	1234.3	1227.8	1235.1	1235.1
5°	1231.1	1229.5	1224.6	1231.9	1230.3
7.5°	1222.1	1221.3	1217.2	1225.4	1224.6
10°	1209.1	1208.3	1206.7	1215.6	1215.6
12.5°	1194.4	1193.6	1193.6	1204.2	1205.0
15°	1174.1	1174.1	1177.3	1190.4	1190.4
17.5°	1149.7	1152.1	1157.8	1172.5	1174.9
20°	1123.6	1127.7	1135.8	1153.7	1155.4
22.5°	1093.5	1099.2	1112.2	1133.4	1135.8
25°	1062.5	1069.9	1085.3	1109.8	1113.0
27.5°	1029.2	1036.5	1056.8	1082.1	1087.0
30°	990.9	999.8	1025.9	1053.6	1060.9
32.5°	951.8	964.0	993.3	1023.5	1030.8
35°	912.7	925.8	958.3	992.5	1000.7
37.5°	867.1	884.2	922.5	958.3	968.9
40°	823.2	841.9	884.2	924.1	936.3
42.5°	779.2	800.4	845.1	889.1	903.0
45°	731.2	757.2	805.2	852.5	865.5
47.5°	683.9	711.6	765.4	814.2	828.0
50°	637.5	665.2	723.8	775.1	790.6
52.5°	591.9	622.1	683.1	733.6	750.7
55°	544.7	575.6	639.2	691.3	709.2
57.5°	498.3	530.9	594.4	648.1	666.0
60°	450.3	484.5	549.6	603.3	621.2
62.5°	403.0	440.5	504.8	558.5	576.5
65°	359.9	393.3	458.4	512.1	529.2
67.5°	311.8	349.3	413.6	462.5	468.2
70°	269.5	303.7	365.6	398.1	398.1
72.5°	221.5	258.9	315.1	328.1	331.4
75°	179.9	213.3	256.5	259.7	250.0
77.5°	138.4	171.0	199.5	182.4	169.4
80°	101.8	128.6	133.5	104.2	88.7
82.5°	66.0	84.7	70.8	33.4	23.6
85°	36.6	42.3	16.3	13.0	11.4
87.5°	13.8	10.6	7.3	6.5	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)