

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: P412168

Luminaire Tested: **MRI-4ASR-4-1000-L850-HEO**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-2)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-4ASR-4-1000-L850-HEO
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (336) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

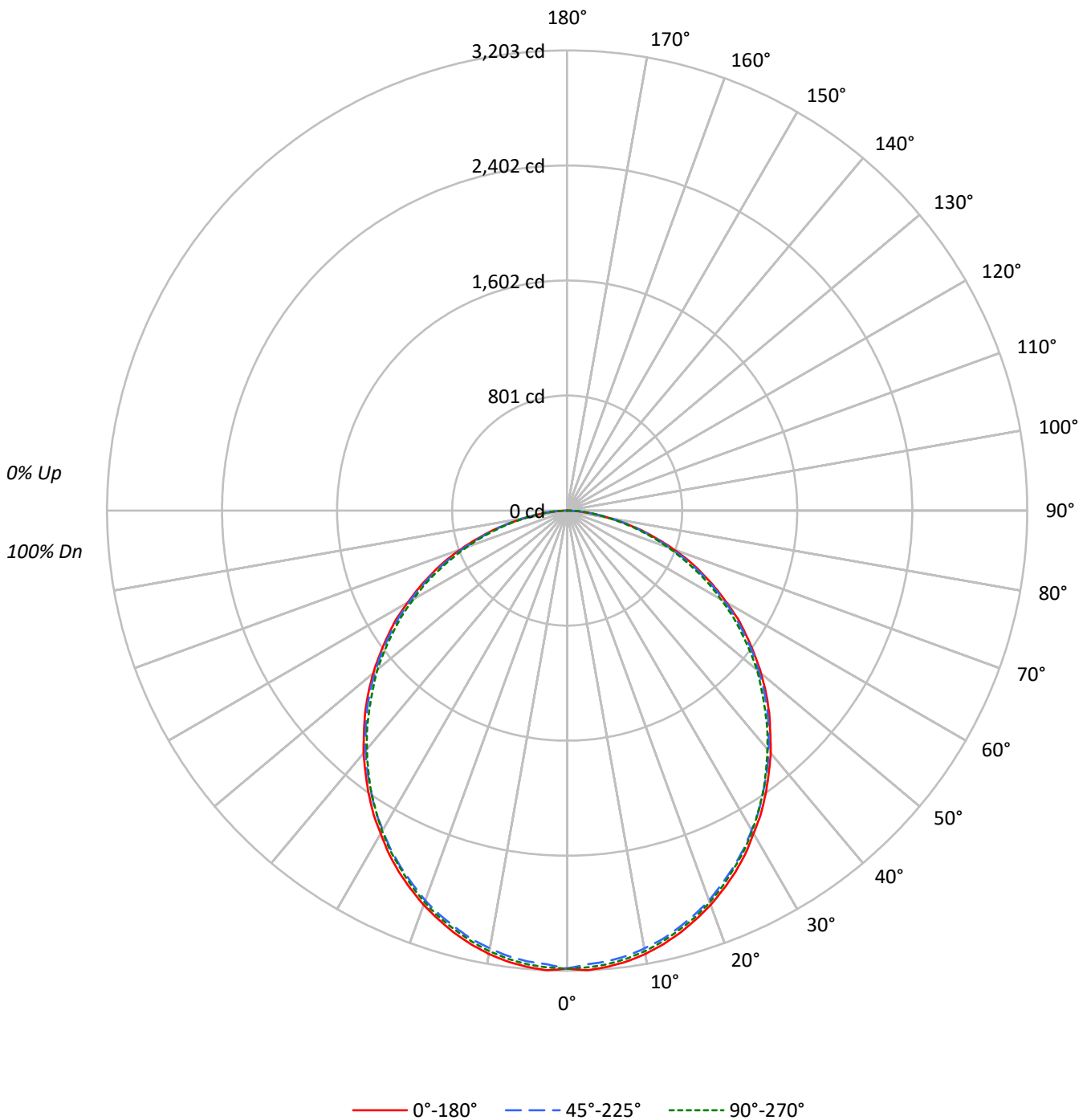
Lumens per Lamp: N/A
Luminaire Lumens: 8498.0 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.7
Input Voltage (V): NR
Input Current (A_{in}): 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	63	70	65	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25734	25734	25734
5°	25841	25528	25693
10°	25690	25373	25532
15°	25419	25113	25239
20°	25094	24808	24928
25°	24705	24389	24475
30°	24199	23939	24009
35°	23728	23474	23474
40°	23231	23004	22857
45°	22699	22514	22207
50°	22132	21876	21660
55°	21472	21229	20821
60°	20723	20446	19960
65°	19853	19482	18886
70°	18588	18080	17599
75°	16912	16510	15873
80°	13854	14105	13505
85°	9967	11263	12060



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.9	3.5
10°-20°	852.8	10.0
20°-30°	1268.3	14.9
30°-40°	1495.5	17.6
40°-50°	1519.4	17.9
50°-60°	1348.3	15.9
60°-70°	1008.8	11.9
70°-80°	558.7	6.6
80°-90°	145.3	1.7
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°	2422.0	28.5
0°-40°	3917.5	46.1
0°-60°	6785.1	79.8
0°-90°	8498.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8498.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3188	3188	3188	3188	3188	
5°	3189	3180	3150	3174	3170	303
15°	3041	3036	3005	3027	3020	858
25°	2774	2763	2738	2752	2748	1277
35°	2408	2403	2382	2385	2382	1506
45°	1988	1988	1972	1956	1945	1533
55°	1526	1532	1508	1489	1479	1365
65°	1039	1046	1020	1003	989	1028
75°	542	537	529	514	509	570
85°	108	123	122	126	130	135
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3187.7	3187.7	3187.7	3187.7	3187.7
2.5°	3202.8	3193.1	3161.9	3187.7	3183.4
5°	3188.8	3180.2	3150.1	3173.8	3170.5
7.5°	3166.2	3156.5	3128.6	3152.2	3146.9
10°	3133.9	3124.3	3095.2	3120.0	3114.6
12.5°	3092.0	3083.4	3056.5	3076.9	3072.6
15°	3041.4	3036.0	3004.8	3027.4	3019.9
17.5°	2983.3	2977.9	2950.0	2971.5	2967.2
20°	2920.9	2911.2	2887.6	2902.6	2901.6
22.5°	2848.8	2840.2	2813.3	2831.6	2828.4
25°	2773.5	2762.8	2738.0	2752.0	2747.7
27.5°	2689.6	2678.9	2658.4	2669.2	2667.0
30°	2596.0	2592.8	2568.1	2577.7	2575.6
32.5°	2507.8	2499.2	2482.0	2480.9	2477.7
35°	2407.7	2403.4	2381.9	2385.2	2381.9
37.5°	2305.5	2303.4	2285.1	2280.8	2274.3
40°	2204.4	2198.0	2182.9	2174.3	2168.9
42.5°	2092.5	2095.8	2075.3	2065.6	2061.3
45°	1988.2	1988.2	1972.0	1955.9	1945.1
47.5°	1876.3	1877.4	1860.1	1839.7	1833.2
50°	1762.2	1764.4	1741.8	1724.6	1724.6
52.5°	1642.8	1649.3	1627.8	1609.5	1601.9
55°	1525.6	1532.0	1508.3	1489.0	1479.3
57.5°	1412.6	1411.5	1392.1	1366.3	1364.2
60°	1283.5	1291.0	1266.3	1246.9	1236.2
62.5°	1160.8	1170.5	1143.6	1125.3	1118.9
65°	1039.3	1045.7	1019.9	1002.7	988.7
67.5°	919.9	917.7	894.0	874.7	867.1
70°	787.5	791.8	766.0	752.0	745.6
72.5°	663.8	668.1	645.5	635.8	625.1
75°	542.2	536.8	529.3	514.3	508.9
77.5°	413.1	418.5	416.4	400.2	398.1
80°	298.0	309.8	303.4	291.6	290.5
82.5°	198.0	209.8	206.6	203.3	200.1
85°	107.6	122.6	121.6	125.9	130.2
87.5°	40.9	52.7	62.4	61.3	64.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)