

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: P412166

Luminaire Tested: **MRI-4ASR-4-1000-L840-HEO**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412166
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-L840-HEO
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (336) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

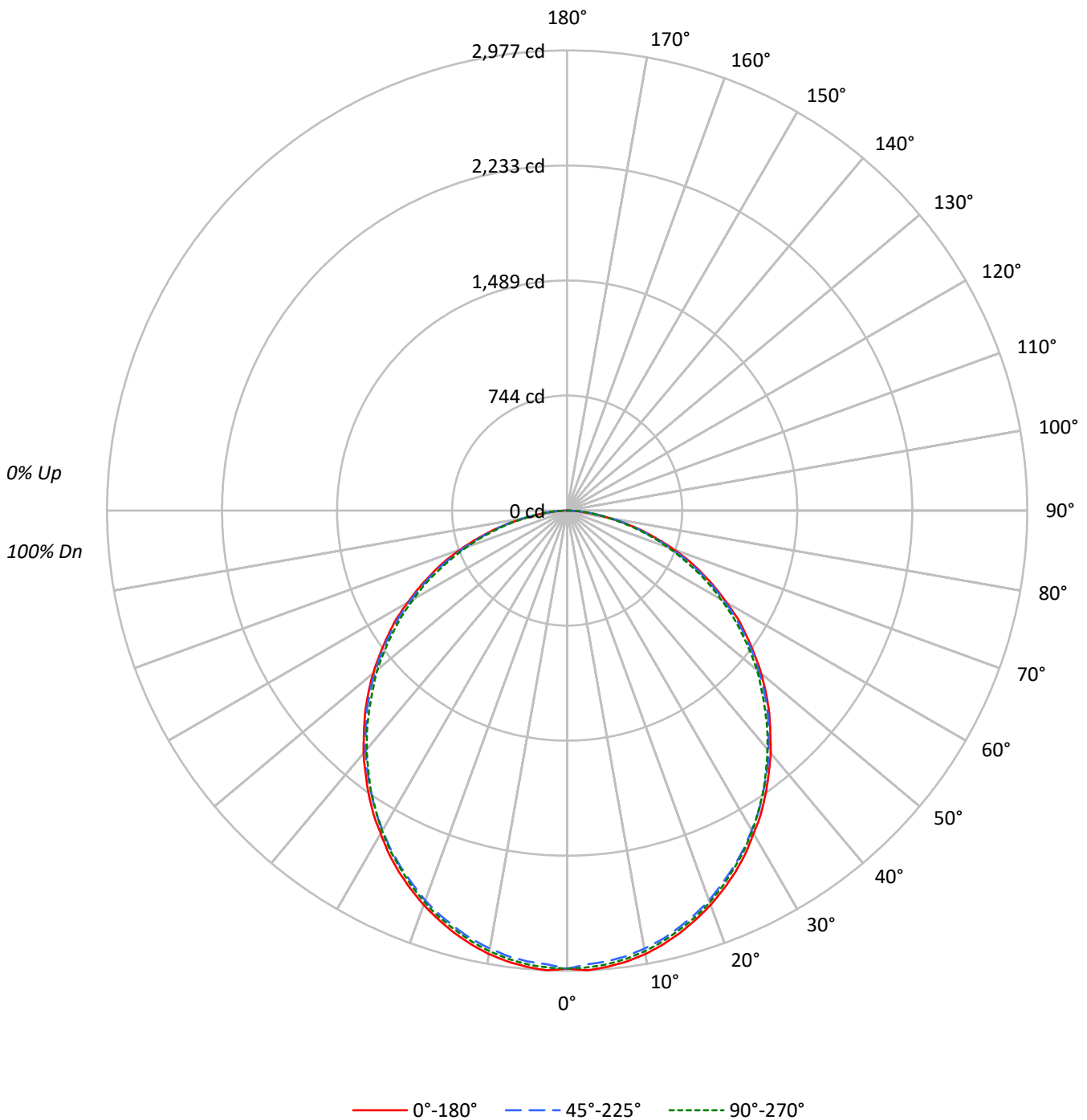
Lumens per Lamp: N/A
Luminaire Lumens: 7898.9 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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°	23920	23920	23920
5°	24020	23728	23882
10°	23879	23584	23732
15°	23627	23343	23460
20°	23325	23058	23170
25°	22964	22670	22750
30°	22494	22251	22316
35°	22056	21820	21820
40°	21593	21383	21246
45°	21098	20927	20642
50°	20572	20333	20133
55°	19958	19733	19353
60°	19262	19004	18552
65°	18453	18109	17555
70°	17278	16806	16357
75°	15720	15346	14754
80°	12878	13110	12552
85°	9263	10467	11208



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.7	3.5
10°-20°	792.7	10.0
20°-30°	1178.8	14.9
30°-40°	1390.0	17.6
40°-50°	1412.2	17.9
50°-60°	1253.2	15.9
60°-70°	937.7	11.9
70°-80°	519.4	6.6
80°-90°	135.0	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°	2251.3	28.5
0°-40°	3641.3	46.1
0°-60°	6306.8	79.8
0°-90°	7898.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7898.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2963	2963	2963	2963	2963	
5°	2964	2956	2928	2950	2947	281
15°	2827	2822	2793	2814	2807	797
25°	2578	2568	2545	2558	2554	1187
35°	2238	2234	2214	2217	2214	1400
45°	1848	1848	1833	1818	1808	1425
55°	1418	1424	1402	1384	1375	1269
65°	966	972	948	932	919	956
75°	504	499	492	478	473	530
85°	100	114	113	117	121	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2963	2963	2963	2963	2963
2.5°	2977	2968	2939	2963	2959
5°	2964	2956	2928	2950	2947
7.5°	2943	2934	2908	2930	2925
10°	2913	2904	2877	2900	2895
12.5°	2874	2866	2841	2860	2856
15°	2827	2822	2793	2814	2807
17.5°	2773	2768	2742	2762	2758
20°	2715	2706	2684	2698	2697
22.5°	2648	2640	2615	2632	2629
25°	2578	2568	2545	2558	2554
27.5°	2500	2490	2471	2481	2479
30°	2413	2410	2387	2396	2394
32.5°	2331	2323	2307	2306	2303
35°	2238	2234	2214	2217	2214
37.5°	2143	2141	2124	2120	2114
40°	2049	2043	2029	2021	2016
42.5°	1945	1948	1929	1920	1916
45°	1848	1848	1833	1818	1808
47.5°	1744	1745	1729	1710	1704
50°	1638	1640	1619	1603	1603
52.5°	1527	1533	1513	1496	1489
55°	1418	1424	1402	1384	1375
57.5°	1313	1312	1294	1270	1268
60°	1193	1200	1177	1159	1149
62.5°	1079	1088	1063	1046	1040
65°	966	972	948	932	919
67.5°	855	853	831	813	806
70°	732	736	712	699	693
72.5°	617	621	600	591	581
75°	504	499	492	478	473
77.5°	384	389	387	372	370
80°	277	288	282	271	270
82.5°	184	195	192	189	186
85°	100	114	113	117	121
87.5°	38	49	58	57	60
90°	0	0	0	0	0

(END OF REPORT)