

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: P412148

Luminaire Tested: **MRI-2ASR-4-250-L940-HEO**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412148
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-1)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-2ASR-4-250-L940-HEO
Description: 4 FT, 2 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1699.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.17 / 1.32
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

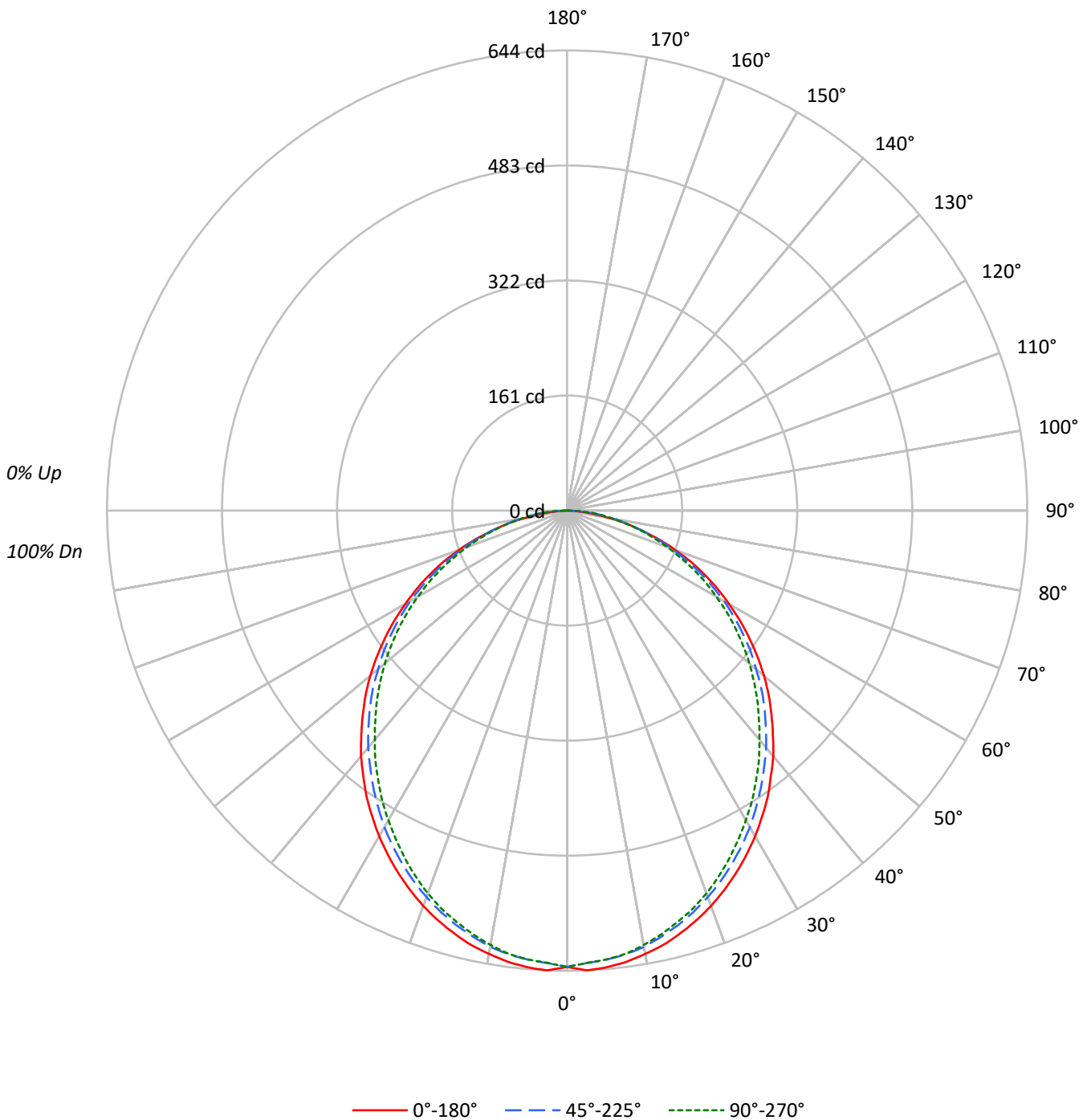
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84					84			
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70					70			
3	90	80	72	65	88	78	71	65	75	69	63	72	67	62	70	65	61	59					59			
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51					51			
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	44					44			
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38					38			
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34					34			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30					30			
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27					27			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10309	10309	10309
5°	10397	10227	10220
10°	10329	10162	10119
15°	10238	10036	9966
20°	10117	9892	9794
25°	9969	9718	9567
30°	9812	9534	9329
35°	9644	9319	9085
40°	9459	9128	8823
45°	9236	8910	8597
50°	9033	8668	8369
55°	8763	8450	8104
60°	8441	8179	7782
65°	8115	7817	7469
70°	7586	7355	7034
75°	6781	6793	6556
80°	5579	6100	6044
85°	3761	5817	6002



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	3.5
10°-20°	170.2	10.0
20°-30°	252.3	14.9
30°-40°	296.7	17.5
40°-50°	301.4	17.7
50°-60°	268.1	15.8
60°-70°	202.2	11.9
70°-80°	114.9	6.8
80°-90°	32.9	1.9
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°	482.8	28.4
0°-40°	779.5	45.9
0°-60°	1349.0	79.4
0°-90°	1699.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	638	638	638	638	638	
5°	642	637	631	636	631	61
15°	612	608	600	603	596	173
25°	560	554	546	544	537	258
35°	489	483	473	467	461	306
45°	404	400	390	382	376	312
55°	311	308	300	292	288	278
65°	212	211	205	198	196	210
75°	109	110	109	106	105	116
85°	20	28	31	31	32	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	638.5	638.5	638.5	638.5	638.5
2.5°	644.1	639.7	633.9	638.7	633.5
5°	641.5	637.1	631.0	635.7	630.6
7.5°	636.9	632.5	626.4	630.6	625.8
10°	630.0	626.0	619.8	623.2	617.2
12.5°	622.6	617.4	610.7	613.7	607.7
15°	612.5	607.7	600.4	602.7	596.2
17.5°	601.4	595.8	588.8	590.0	584.5
20°	588.8	583.1	575.7	576.1	570.0
22.5°	574.7	569.4	561.4	560.0	554.3
25°	559.6	553.7	545.5	543.5	537.0
27.5°	543.3	537.8	529.0	525.7	518.9
30°	526.3	519.9	511.4	506.6	500.4
32.5°	507.8	502.0	492.5	486.5	481.6
35°	489.3	482.6	472.8	466.7	460.9
37.5°	468.4	462.1	452.8	446.8	441.0
40°	448.8	442.0	433.1	425.7	418.6
42.5°	426.3	421.4	411.8	404.3	397.5
45°	404.5	399.5	390.2	382.4	376.5
47.5°	382.6	377.5	368.7	360.2	354.6
50°	359.6	354.2	345.1	337.7	333.2
52.5°	335.7	331.8	323.8	315.3	310.3
55°	311.3	308.1	300.2	291.8	287.9
57.5°	286.7	284.1	276.9	268.8	265.0
60°	261.4	260.2	253.3	245.7	241.0
62.5°	237.4	235.6	228.5	222.9	218.7
65°	212.4	211.0	204.6	198.1	195.5
67.5°	187.3	185.7	179.6	175.2	171.2
70°	160.7	160.7	155.8	151.6	149.0
72.5°	135.5	135.7	132.5	128.1	126.9
75°	108.7	110.3	108.9	105.9	105.1
77.5°	85.0	86.4	86.6	85.6	84.2
80°	60.0	64.0	65.6	65.4	65.0
82.5°	38.5	44.9	47.9	47.7	48.1
85°	20.3	28.0	31.4	31.4	32.4
87.5°	7.0	14.3	15.3	14.1	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)