

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: P412094

Luminaire Tested: **MRI-4ASR-2-1000-L840-HEO**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412094
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-2-1000-L840-HEO
Description: 2 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (196) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

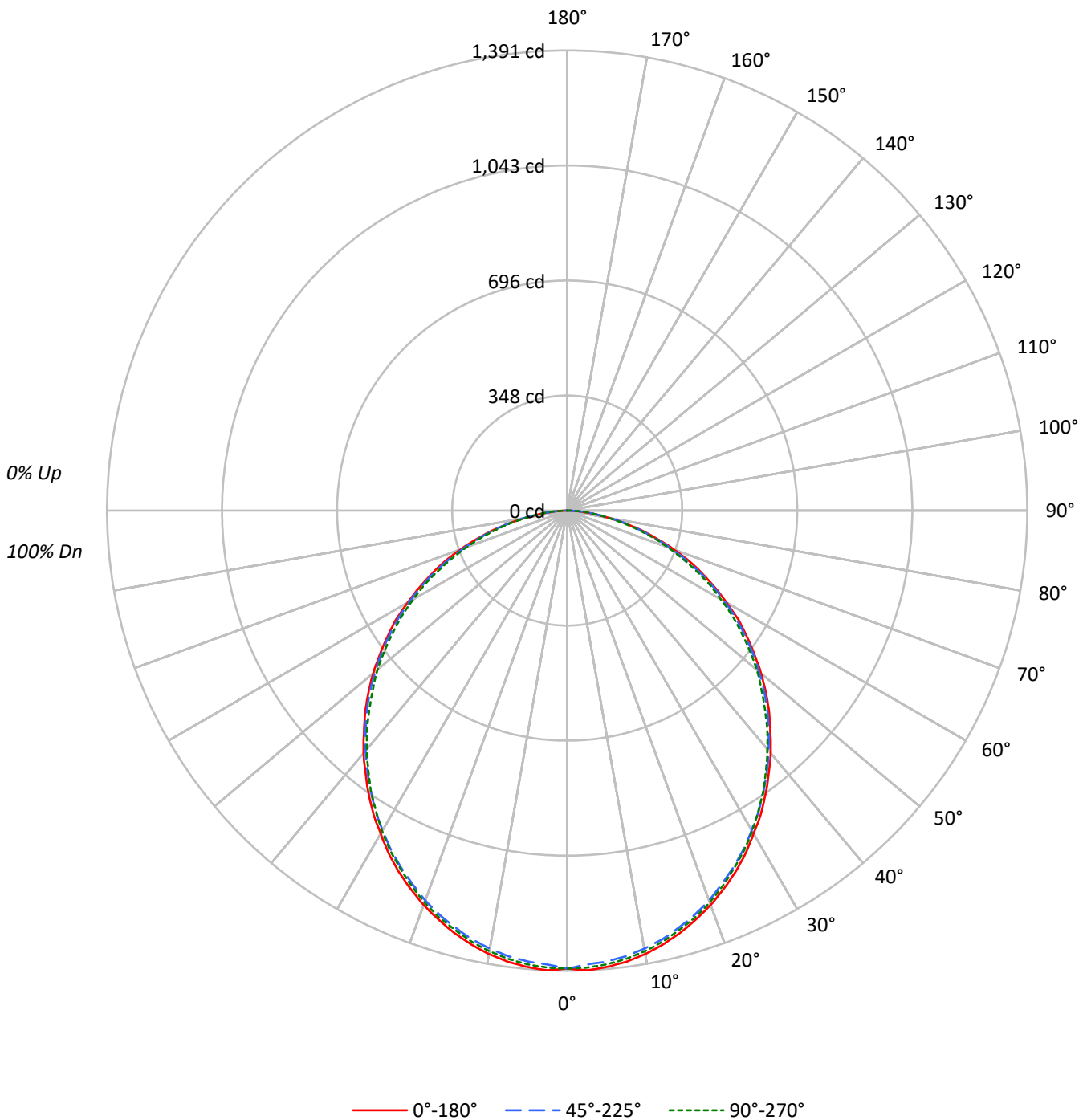
Lumens per Lamp: N/A
Luminaire Lumens: 3691.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32
Luminous Opening: Rectangular (W 0.33' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 34.9
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°	22356	22356	22356
5°	22447	22175	22319
10°	22317	22041	22179
15°	22081	21815	21926
20°	21799	21550	21655
25°	21462	21186	21260
30°	21021	20795	20857
35°	20613	20392	20392
40°	20181	19983	19854
45°	19717	19557	19290
50°	19226	19002	18816
55°	18652	18441	18086
60°	18003	17760	17337
65°	17245	16925	16405
70°	16145	15706	15286
75°	14691	14342	13787
80°	12032	12255	11734
85°	8651	9781	10467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.7	3.5
10°-20°	370.4	10.0
20°-30°	550.9	14.9
30°-40°	649.5	17.6
40°-50°	659.9	17.9
50°-60°	585.6	15.9
60°-70°	438.2	11.9
70°-80°	242.7	6.6
80°-90°	63.1	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°	1052.0	28.5
0°-40°	1701.5	46.1
0°-60°	2947.0	79.8
0°-90°	3691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3691.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1385	1385	1385	1385	1385	
5°	1385	1381	1368	1378	1377	131
15°	1321	1319	1305	1315	1312	372
25°	1205	1200	1189	1195	1193	555
35°	1046	1044	1035	1036	1035	654
45°	864	864	856	850	845	666
55°	663	665	655	647	642	593
65°	451	454	443	436	429	447
75°	236	233	230	223	221	247
85°	47	53	53	55	56	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1384.6	1384.6	1384.6	1384.6	1384.6
2.5°	1391.1	1386.9	1373.3	1384.6	1382.7
5°	1385.0	1381.3	1368.2	1378.5	1377.1
7.5°	1375.2	1371.0	1358.9	1369.1	1366.8
10°	1361.2	1357.0	1344.4	1355.1	1352.8
12.5°	1343.0	1339.2	1327.5	1336.4	1334.6
15°	1321.0	1318.7	1305.1	1314.9	1311.7
17.5°	1295.8	1293.4	1281.3	1290.6	1288.8
20°	1268.7	1264.5	1254.2	1260.7	1260.3
22.5°	1237.4	1233.6	1221.9	1229.9	1228.5
25°	1204.7	1200.0	1189.2	1195.3	1193.4
27.5°	1168.2	1163.5	1154.7	1159.3	1158.4
30°	1127.5	1126.1	1115.4	1119.6	1118.7
32.5°	1089.2	1085.5	1078.0	1077.6	1076.1
35°	1045.8	1043.9	1034.6	1036.0	1034.6
37.5°	1001.4	1000.4	992.5	990.6	987.8
40°	957.5	954.7	948.1	944.4	942.0
42.5°	908.9	910.3	901.4	897.2	895.3
45°	863.5	863.5	856.5	849.5	844.8
47.5°	814.9	815.4	807.9	799.1	796.2
50°	765.4	766.3	756.5	749.1	749.1
52.5°	713.5	716.3	707.0	699.1	695.8
55°	662.6	665.4	655.1	646.7	642.5
57.5°	613.5	613.1	604.7	593.4	592.5
60°	557.5	560.7	550.0	541.6	536.9
62.5°	504.2	508.4	496.7	488.8	486.0
65°	451.4	454.2	443.0	435.5	429.4
67.5°	399.5	398.6	388.3	379.9	376.6
70°	342.0	343.9	332.7	326.6	323.8
72.5°	288.3	290.2	280.4	276.2	271.5
75°	235.5	233.2	229.9	223.4	221.0
77.5°	179.4	181.8	180.8	173.8	172.9
80°	129.4	134.6	131.8	126.6	126.2
82.5°	86.0	91.1	89.7	88.3	86.9
85°	46.7	53.3	52.8	54.7	56.5
87.5°	17.8	22.9	27.1	26.6	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)