

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: P412027

Luminaire Tested: **MRI-22ATR-40-L840-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412027
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2008-915-2)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-22ATR-40-L840-OPL
Description: 2X2 TROFFER, 4000LM, OPAL LENS
Light Source: (588) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4034.0 lumens
Efficiency: N/A
Efficacy: 67.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

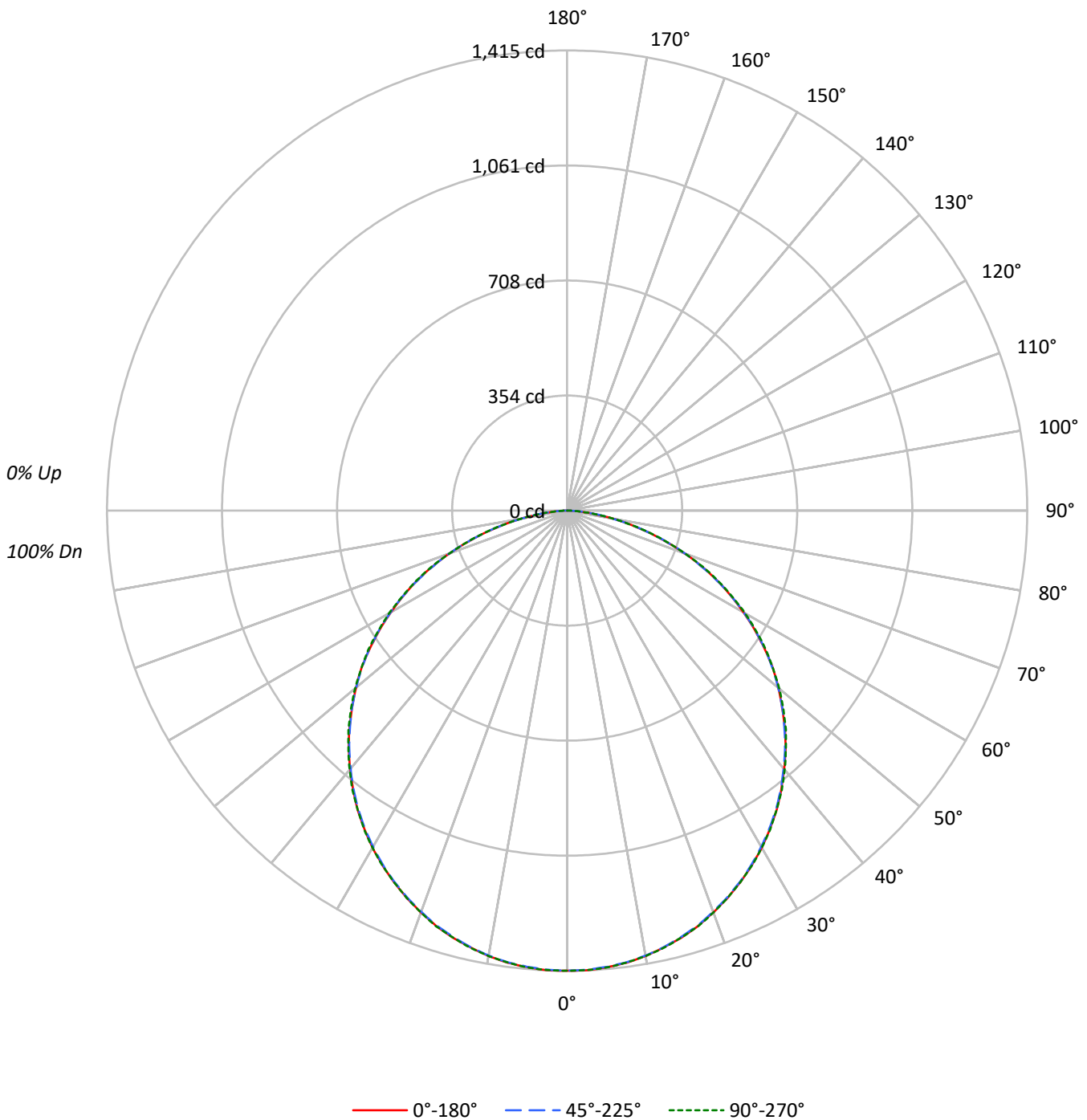
Input Watts (W): 59.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	98	94	91		94	91	89		90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75		82	77	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	28	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°	3807	3807	3807
5°	3807	3804	3809
10°	3800	3797	3800
15°	3787	3780	3785
20°	3765	3759	3767
25°	3743	3737	3743
30°	3719	3709	3719
35°	3691	3680	3688
40°	3646	3639	3655
45°	3602	3594	3619
50°	3548	3548	3565
55°	3477	3483	3502
60°	3370	3381	3402
65°	3247	3234	3264
70°	3029	3034	3034
75°	2682	2689	2724
80°	2207	2207	2247
85°	1445	1528	1423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.9	3.3
10°-20°	383.2	9.5
20°-30°	580.6	14.4
30°-40°	701.5	17.4
40°-50°	730.5	18.1
50°-60°	663.1	16.4
60°-70°	502.8	12.5
70°-80°	275.8	6.8
80°-90°	62.7	1.6
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°	1097.7	27.2
0°-40°	1799.2	44.6
0°-60°	3192.7	79.1
0°-90°	4034.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4034.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1415	1415	1415	1415	1415	
5°	1410	1409	1408	1409	1410	134
15°	1359	1358	1357	1357	1359	384
25°	1260	1258	1258	1261	1260	581
35°	1124	1121	1120	1122	1123	702
45°	946	946	944	949	951	730
55°	741	740	742	746	746	662
65°	510	507	508	509	513	502
75°	258	259	259	261	262	274
85°	47	48	50	48	46	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1414.9	1414.9	1414.9	1414.9	1414.9
2.5°	1414.9	1413.5	1412.9	1413.5	1414.2
5°	1409.5	1408.9	1408.2	1408.9	1410.2
7.5°	1402.2	1401.5	1400.8	1400.8	1401.5
10°	1390.8	1390.1	1389.5	1390.1	1390.8
12.5°	1375.4	1375.4	1374.8	1374.8	1376.8
15°	1359.4	1358.1	1356.7	1357.4	1358.7
17.5°	1339.3	1337.3	1337.3	1338.0	1340.0
20°	1314.6	1314.6	1312.6	1314.0	1315.3
22.5°	1289.2	1287.9	1287.2	1288.6	1289.2
25°	1260.5	1258.5	1258.5	1261.2	1260.5
27.5°	1229.7	1227.7	1227.7	1228.4	1230.4
30°	1197.0	1195.7	1193.7	1195.7	1197.0
32.5°	1160.2	1158.2	1158.2	1160.2	1162.2
35°	1123.5	1120.8	1120.1	1121.5	1122.8
37.5°	1081.4	1079.4	1079.4	1082.7	1084.0
40°	1037.9	1037.9	1035.9	1039.3	1040.6
42.5°	994.5	993.1	991.8	995.8	995.8
45°	946.4	945.7	944.4	949.0	951.0
47.5°	896.9	898.9	897.6	900.9	901.6
50°	847.5	846.8	847.5	849.5	851.5
52.5°	798.0	794.7	796.0	796.7	798.0
55°	741.2	740.5	742.5	745.9	746.5
57.5°	684.4	684.4	685.7	689.7	689.1
60°	626.2	626.9	628.2	630.9	632.2
62.5°	567.4	568.1	568.8	572.8	571.4
65°	509.9	506.6	507.9	509.3	512.6
67.5°	447.1	445.1	445.1	448.5	451.1
70°	385.0	383.6	385.6	386.3	385.6
72.5°	320.1	321.5	322.1	323.5	322.8
75°	258.0	259.3	258.6	261.3	262.0
77.5°	198.5	199.8	201.2	201.2	199.8
80°	142.4	142.4	142.4	143.0	145.0
82.5°	88.9	90.9	93.6	90.2	91.6
85°	46.8	48.1	49.5	48.1	46.1
87.5°	19.4	20.1	19.4	20.1	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)