

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: P412048

Luminaire Tested: **MRI-24ATR-40-L940-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2008-915-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-24ATR-40-L940-OPL
Description: 2X4 TROFFER, 4000LM, OPAL LENS
Light Source: (1008) 4000K CCT, 90 CRI LED'S
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3452.0 lumens
Efficiency: N/A
Efficacy: 67.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

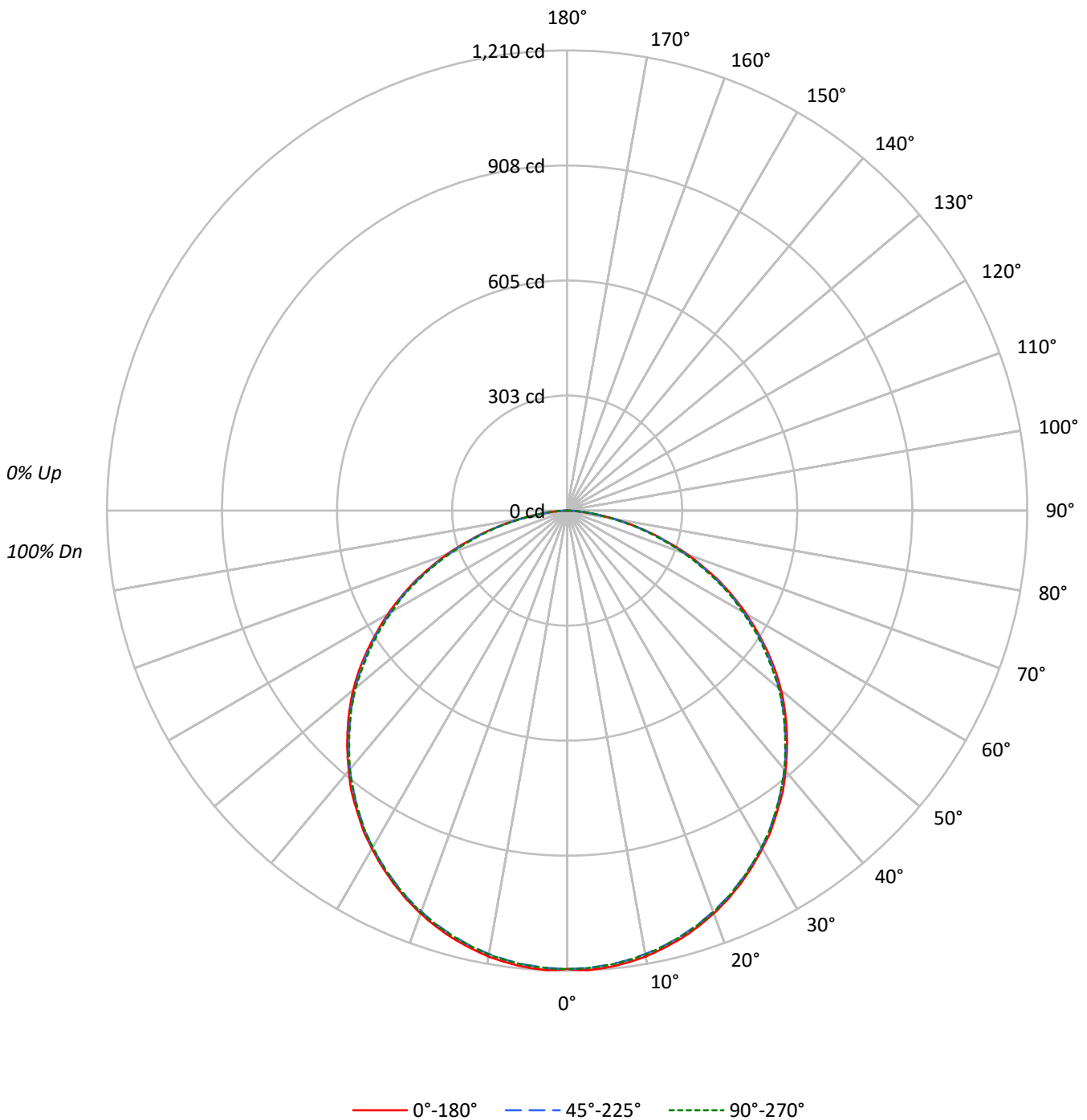
Input Watts (W): 51
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	40	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	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1622	1622	1622
5°	1629	1620	1622
10°	1627	1617	1619
15°	1622	1613	1614
20°	1614	1606	1609
25°	1605	1598	1599
30°	1595	1590	1588
35°	1583	1576	1576
40°	1569	1562	1561
45°	1554	1541	1539
50°	1537	1522	1521
55°	1506	1493	1482
60°	1465	1445	1434
65°	1412	1387	1379
70°	1322	1295	1279
75°	1181	1166	1145
80°	951	947	943
85°	624	624	593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.1	3.3
10°-20°	327.1	9.5
20°-30°	496.6	14.4
30°-40°	600.6	17.4
40°-50°	626.1	18.1
50°-60°	568.2	16.5
60°-70°	431.0	12.5
70°-80°	236.0	6.8
80°-90°	52.2	1.5
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°	937.9	27.2
0°-40°	1538.5	44.6
0°-60°	2732.8	79.2
0°-90°	3452.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3452.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1206	1206	1206	1206	1206	
5°	1206	1202	1200	1198	1201	115
15°	1164	1161	1158	1156	1159	328
25°	1081	1078	1076	1075	1077	498
35°	964	961	959	957	959	603
45°	817	813	810	810	809	630
55°	642	638	636	634	632	573
65°	443	440	436	434	433	437
75°	227	224	224	220	220	240
85°	40	39	40	40	38	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1205.5	1205.5	1205.5	1205.5	1205.5
2.5°	1209.9	1205.5	1203.5	1202.0	1204.5
5°	1206.0	1201.5	1199.6	1198.1	1200.6
7.5°	1199.6	1195.6	1193.2	1191.7	1194.2
10°	1190.7	1186.3	1183.8	1182.8	1185.3
12.5°	1177.9	1174.4	1172.5	1171.5	1173.0
15°	1164.1	1160.7	1157.7	1156.2	1158.7
17.5°	1146.9	1143.4	1141.4	1140.0	1142.4
20°	1127.2	1124.2	1121.7	1120.8	1123.7
22.5°	1105.5	1103.0	1101.0	1099.6	1102.5
25°	1081.3	1078.4	1076.4	1074.9	1077.4
27.5°	1054.7	1052.3	1050.3	1048.8	1050.8
30°	1026.7	1024.7	1023.2	1020.7	1022.2
32.5°	997.6	993.6	992.2	991.7	993.2
35°	963.6	961.1	959.2	957.2	959.2
37.5°	931.6	926.7	924.7	923.7	924.2
40°	893.2	890.7	889.2	885.8	888.7
42.5°	855.7	853.7	850.3	848.8	848.8
45°	816.8	813.3	809.9	809.9	808.9
47.5°	776.4	773.9	770.0	768.5	769.0
50°	734.5	730.1	727.1	723.7	726.6
52.5°	689.2	685.8	682.8	679.8	677.9
55°	641.9	638.5	636.5	633.5	631.6
57.5°	592.2	591.7	588.2	584.8	583.3
60°	544.4	540.9	537.0	537.0	533.0
62.5°	494.1	491.2	489.2	484.8	485.7
65°	443.4	439.9	435.5	434.0	433.0
67.5°	388.2	386.2	382.3	378.8	379.3
70°	336.0	332.0	329.1	326.1	325.1
72.5°	280.3	277.8	275.9	272.9	270.5
75°	227.1	224.2	224.2	219.7	220.2
77.5°	174.9	173.4	170.9	169.5	168.0
80°	122.7	123.2	122.2	119.2	121.7
82.5°	79.3	77.8	76.9	76.9	76.4
85°	40.4	39.4	40.4	40.4	38.4
87.5°	12.3	13.8	14.3	14.3	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)