

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: P589430

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589430
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-3LO-50-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

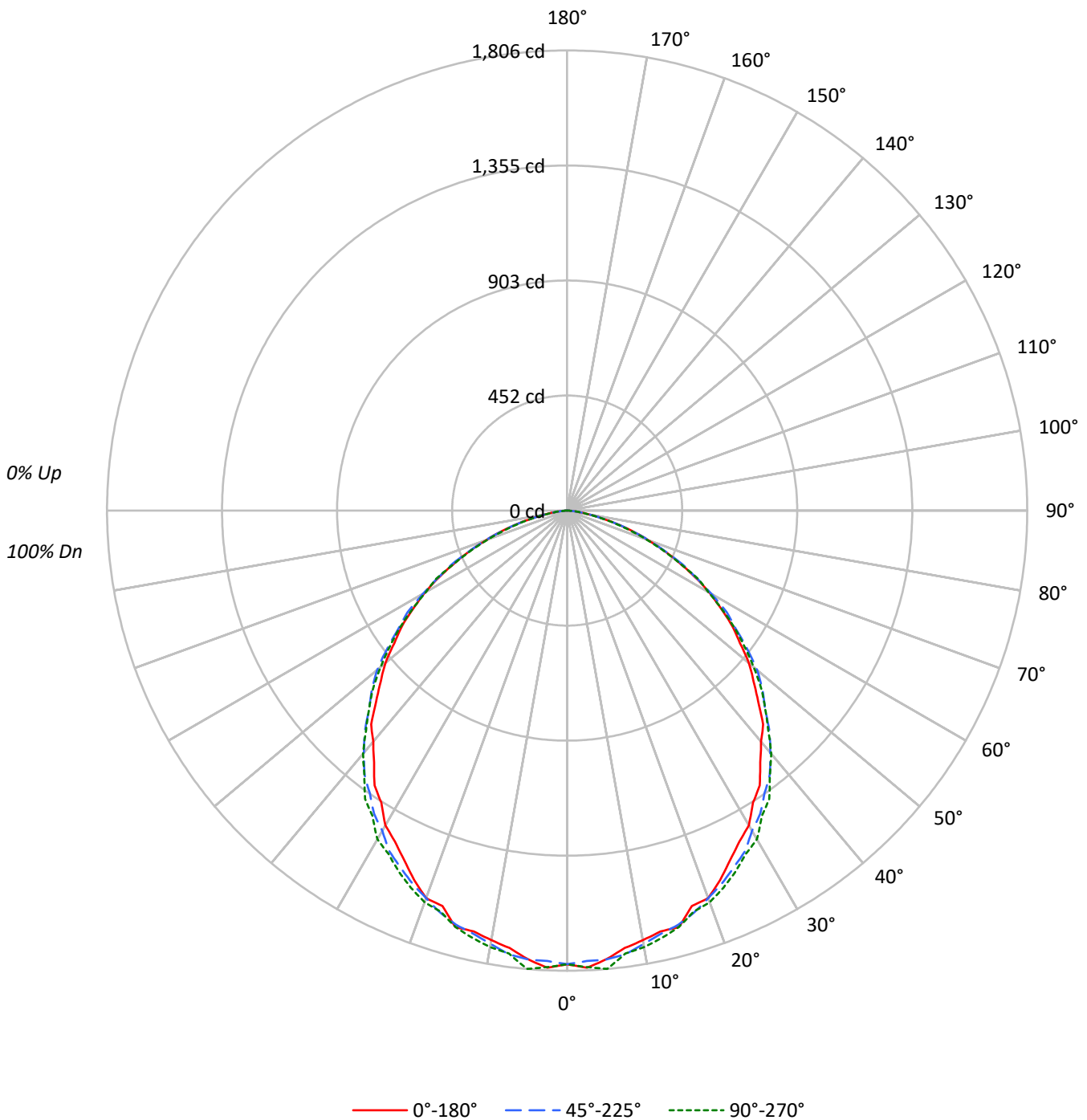
Lumens per Lamp: N/A
Luminaire Lumens: 4487.0 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4791	4791	4791
5°	4775	4777	4877
10°	4678	4719	4752
15°	4715	4690	4716
20°	4635	4635	4685
25°	4493	4591	4642
30°	4431	4509	4629
35°	4327	4440	4540
40°	4158	4359	4378
45°	4033	4176	4182
50°	3900	4076	3998
55°	3716	3788	3762
60°	3475	3510	3447
65°	3098	3177	3077
70°	2659	2668	2593
75°	2105	2101	2019
80°	1410	1371	1319
85°	766	760	710



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.5	3.7
10°-20°	474.6	10.6
20°-30°	711.1	15.8
30°-40°	842.8	18.8
40°-50°	844.3	18.8
50°-60°	716.7	16.0
60°-70°	483.2	10.8
70°-80°	212.3	4.7
80°-90°	34.5	0.8
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°	1353.2	30.2
0°-40°	2196.0	48.9
0°-60°	3757.0	83.7
0°-90°	4487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4487.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1780	1780	1780	1780	1780	
5°	1768	1764	1768	1763	1806	167
15°	1692	1673	1683	1692	1693	472
25°	1513	1522	1546	1567	1563	700
35°	1317	1321	1352	1383	1382	818
45°	1060	1080	1097	1126	1099	820
55°	792	787	808	802	802	705
65°	487	480	499	480	483	484
75°	202	198	202	188	194	217
85°	25	24	25	24	23	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1780.3	1780.3	1780.3	1780.3	1780.3
2.5°	1795.7	1782.2	1769.5	1784.2	1793.2
5°	1767.7	1763.5	1768.4	1763.1	1805.6
7.5°	1731.4	1747.2	1756.4	1750.7	1753.2
10°	1712.1	1706.5	1727.0	1741.3	1739.2
12.5°	1691.4	1699.6	1700.8	1716.2	1717.6
15°	1692.5	1673.0	1683.3	1692.1	1692.7
17.5°	1626.8	1647.9	1655.1	1675.0	1650.2
20°	1618.7	1603.3	1618.7	1639.2	1636.0
22.5°	1569.3	1552.1	1585.2	1603.3	1602.2
25°	1513.2	1521.5	1546.3	1566.6	1563.3
27.5°	1464.0	1473.7	1509.1	1536.9	1519.0
30°	1426.1	1421.3	1451.2	1476.0	1489.8
32.5°	1358.3	1375.8	1410.7	1435.3	1422.2
35°	1317.1	1321.1	1351.6	1382.9	1382.0
37.5°	1245.2	1263.4	1306.3	1315.1	1307.0
40°	1183.8	1202.0	1240.8	1250.3	1246.3
42.5°	1138.5	1141.8	1175.1	1185.9	1168.6
45°	1059.7	1079.5	1097.4	1125.7	1099.0
47.5°	992.6	1001.8	1040.4	1048.0	1033.9
50°	931.7	934.9	973.7	964.3	955.1
52.5°	855.1	868.7	890.5	888.7	877.9
55°	792.1	786.8	807.5	802.0	801.8
57.5°	716.5	725.7	742.7	734.0	719.9
60°	645.7	645.9	652.1	642.3	640.4
62.5°	566.9	569.6	571.0	558.8	578.6
65°	486.6	480.2	499.0	480.0	483.2
67.5°	412.8	416.1	414.2	402.3	406.9
70°	337.9	342.0	339.1	325.5	329.6
72.5°	269.4	264.3	267.6	250.6	258.4
75°	202.5	198.4	202.1	187.8	194.2
77.5°	137.9	141.1	138.8	131.3	135.6
80°	91.0	88.5	88.5	84.1	85.1
82.5°	53.1	50.6	49.9	48.5	50.6
85°	24.8	24.1	24.6	23.9	23.0
87.5°	9.0	9.2	9.2	8.7	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)