

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: P589721

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589721
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-LD4-4LO-50-UNV-80-88-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

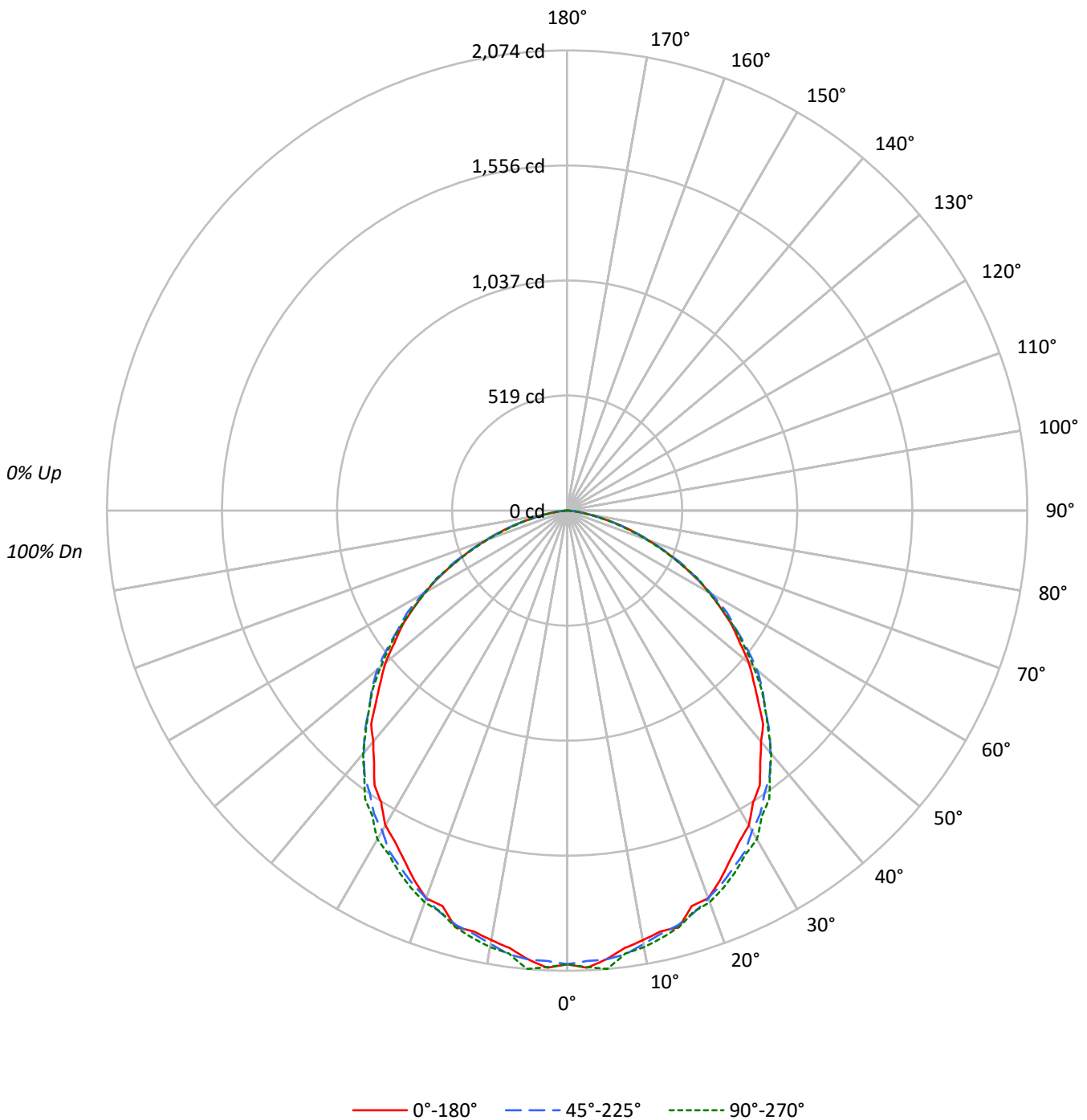
Lumens per Lamp: N/A
Luminaire Lumens: 5153.0 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5502	5502	5502
5°	5484	5486	5601
10°	5373	5419	5458
15°	5415	5386	5416
20°	5324	5324	5380
25°	5160	5273	5331
30°	5089	5179	5316
35°	4969	5099	5214
40°	4776	5006	5028
45°	4631	4796	4803
50°	4479	4681	4592
55°	4268	4351	4320
60°	3991	4031	3958
65°	3559	3649	3533
70°	3054	3064	2979
75°	2418	2412	2320
80°	1619	1574	1514
85°	880	871	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.3	3.7
10°-20°	545.1	10.6
20°-30°	816.6	15.8
30°-40°	967.9	18.8
40°-50°	969.7	18.8
50°-60°	823.1	16.0
60°-70°	554.9	10.8
70°-80°	243.8	4.7
80°-90°	39.6	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°	1554.0	30.2
0°-40°	2521.9	48.9
0°-60°	4314.6	83.7
0°-90°	5153.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5153.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2045	2045	2045	2045	2045	
5°	2030	2025	2031	2025	2074	191
15°	1944	1921	1933	1943	1944	542
25°	1738	1747	1776	1799	1795	803
35°	1513	1517	1552	1588	1587	939
45°	1217	1240	1260	1293	1262	941
55°	910	904	927	921	921	809
65°	559	552	573	551	555	556
75°	233	228	232	216	223	249
85°	28	28	28	28	26	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2044.6	2044.6	2044.6	2044.6	2044.6
2.5°	2062.3	2046.7	2032.2	2049.1	2059.4
5°	2030.1	2025.3	2030.9	2024.8	2073.6
7.5°	1988.4	2006.6	2017.1	2010.5	2013.4
10°	1966.2	1959.8	1983.3	1999.7	1997.3
12.5°	1942.4	1951.9	1953.2	1970.9	1972.5
15°	1943.7	1921.3	1933.2	1943.2	1944.0
17.5°	1868.2	1892.5	1900.7	1923.7	1895.2
20°	1859.0	1841.3	1859.0	1882.5	1878.8
22.5°	1802.2	1782.4	1820.5	1841.3	1840.0
25°	1737.8	1747.3	1775.8	1799.1	1795.4
27.5°	1681.3	1692.4	1733.1	1765.0	1744.4
30°	1637.8	1632.2	1666.6	1695.1	1710.9
32.5°	1559.9	1580.0	1620.1	1648.3	1633.3
35°	1512.6	1517.1	1552.2	1588.1	1587.1
37.5°	1430.0	1450.9	1500.2	1510.3	1501.0
40°	1359.5	1380.4	1425.0	1435.8	1431.3
42.5°	1307.5	1311.2	1349.5	1361.9	1342.1
45°	1217.0	1239.7	1260.3	1292.7	1262.1
47.5°	1139.9	1150.5	1194.8	1203.5	1187.4
50°	1069.9	1073.6	1118.2	1107.4	1096.9
52.5°	982.0	997.6	1022.7	1020.6	1008.2
55°	909.7	903.6	927.4	921.1	920.8
57.5°	822.8	833.4	852.9	842.9	826.8
60°	741.5	741.8	748.9	737.6	735.5
62.5°	651.0	654.2	655.7	641.8	664.5
65°	558.9	551.5	573.1	551.2	554.9
67.5°	474.1	477.8	475.7	462.0	467.3
70°	388.1	392.8	389.4	373.8	378.6
72.5°	309.4	303.6	307.3	287.7	296.7
75°	232.6	227.8	232.0	215.7	223.1
77.5°	158.4	162.1	159.4	150.7	155.8
80°	104.5	101.6	101.6	96.6	97.7
82.5°	61.0	58.1	57.3	55.7	58.1
85°	28.5	27.7	28.2	27.5	26.4
87.5°	10.3	10.6	10.6	10.0	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)