

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: P589495

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589495
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-LD4-3STD-40-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

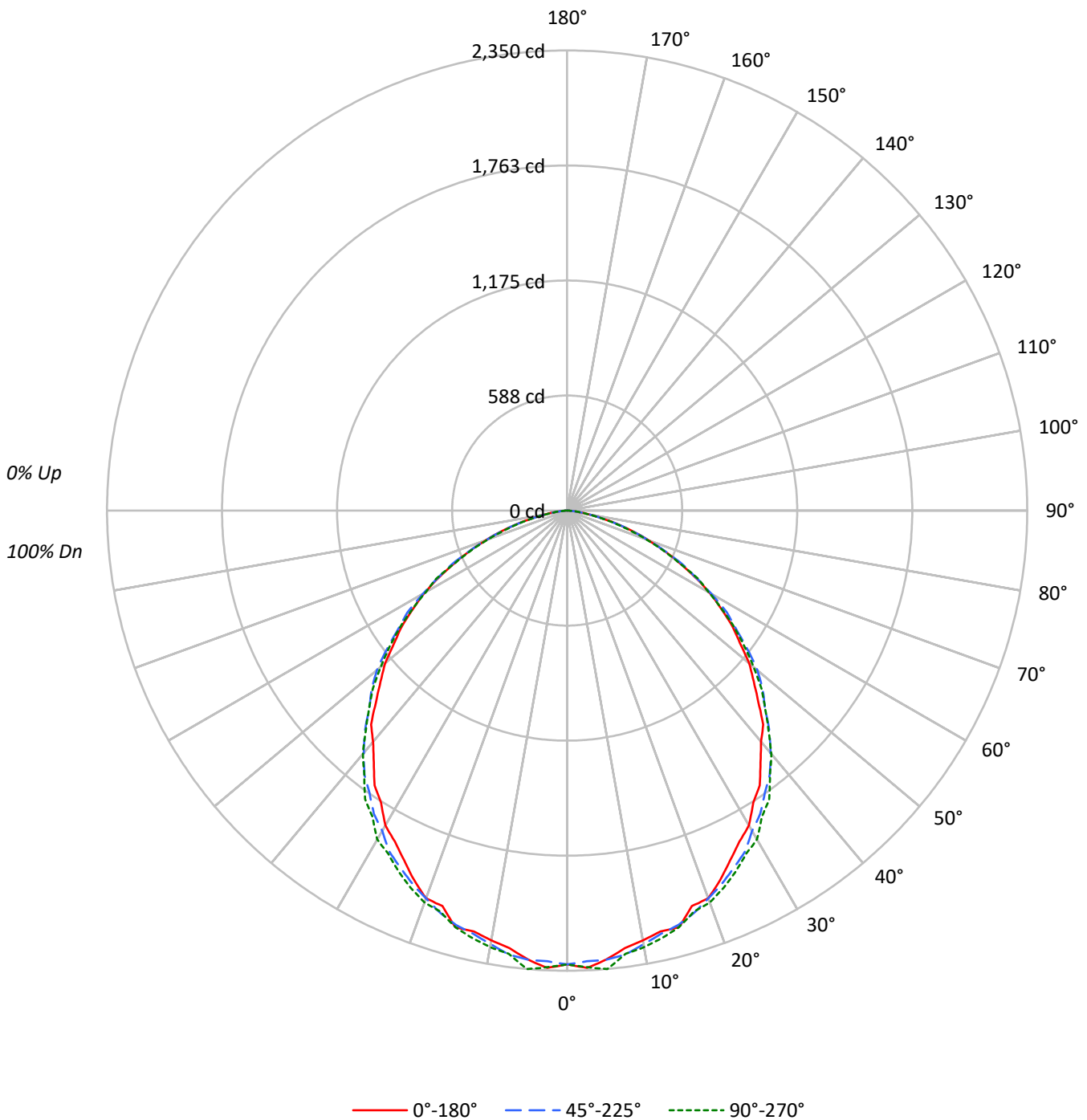
Lumens per Lamp: N/A
Luminaire Lumens: 5841.0 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	6237	6237	6237
5°	6216	6218	6349
10°	6090	6143	6186
15°	6138	6105	6139
20°	6034	6034	6098
25°	5849	5977	6043
30°	5768	5870	6026
35°	5633	5780	5910
40°	5414	5674	5699
45°	5250	5436	5444
50°	5077	5307	5205
55°	4838	4932	4897
60°	4524	4569	4487
65°	4034	4136	4005
70°	3461	3473	3376
75°	2741	2734	2629
80°	1836	1785	1715
85°	997	988	923



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.0	3.7
10°-20°	617.8	10.6
20°-30°	925.7	15.8
30°-40°	1097.1	18.8
40°-50°	1099.1	18.8
50°-60°	933.0	16.0
60°-70°	629.0	10.8
70°-80°	276.4	4.7
80°-90°	44.9	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°	1761.5	30.2
0°-40°	2858.6	48.9
0°-60°	4890.7	83.7
0°-90°	5841.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5841.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2318	2318	2318	2318	2318	
5°	2301	2296	2302	2295	2350	217
15°	2203	2178	2191	2203	2204	614
25°	1970	1981	2013	2039	2035	911
35°	1715	1720	1760	1800	1799	1065
45°	1380	1405	1428	1465	1431	1067
55°	1031	1024	1051	1044	1044	917
65°	634	625	650	625	629	630
75°	264	258	263	244	253	283
85°	32	31	32	31	30	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2317.6	2317.6	2317.6	2317.6	2317.6
2.5°	2337.6	2320.0	2303.5	2322.6	2334.3
5°	2301.1	2295.7	2302.0	2295.1	2350.5
7.5°	2253.8	2274.5	2286.4	2279.0	2282.3
10°	2228.7	2221.5	2248.1	2266.7	2264.0
12.5°	2201.8	2212.5	2214.0	2234.1	2235.9
15°	2203.3	2177.8	2191.3	2202.7	2203.6
17.5°	2117.7	2145.2	2154.5	2180.5	2148.2
20°	2107.2	2087.2	2107.2	2133.8	2129.6
22.5°	2042.9	2020.4	2063.5	2087.2	2085.7
25°	1969.9	1980.6	2012.9	2039.3	2035.1
27.5°	1905.8	1918.4	1964.5	2000.7	1977.3
30°	1856.4	1850.2	1889.1	1921.4	1939.3
32.5°	1768.2	1790.9	1836.4	1868.4	1851.4
35°	1714.6	1719.7	1759.5	1800.2	1799.0
37.5°	1620.9	1644.6	1700.5	1711.9	1701.4
40°	1541.1	1564.7	1615.3	1627.5	1622.4
42.5°	1482.1	1486.3	1529.7	1543.7	1521.3
45°	1379.5	1405.2	1428.5	1465.3	1430.6
47.5°	1292.1	1304.1	1354.3	1364.2	1346.0
50°	1212.8	1217.0	1267.6	1255.3	1243.3
52.5°	1113.1	1130.8	1159.2	1156.8	1142.8
55°	1031.2	1024.3	1051.2	1044.0	1043.7
57.5°	932.7	944.7	966.8	955.5	937.2
60°	840.5	840.8	848.9	836.1	833.7
62.5°	737.9	741.5	743.3	727.4	753.2
65°	633.5	625.1	649.6	624.8	629.0
67.5°	537.4	541.6	539.2	523.7	529.6
70°	439.9	445.3	441.4	423.7	429.1
72.5°	350.7	344.1	348.3	326.2	336.3
75°	263.6	258.2	263.0	244.5	252.9
77.5°	179.5	183.7	180.7	170.9	176.5
80°	118.5	115.2	115.2	109.5	110.7
82.5°	69.1	65.8	64.9	63.1	65.8
85°	32.3	31.4	32.0	31.1	29.9
87.5°	11.7	12.0	12.0	11.4	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)