

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: P589480

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589480
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-35-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

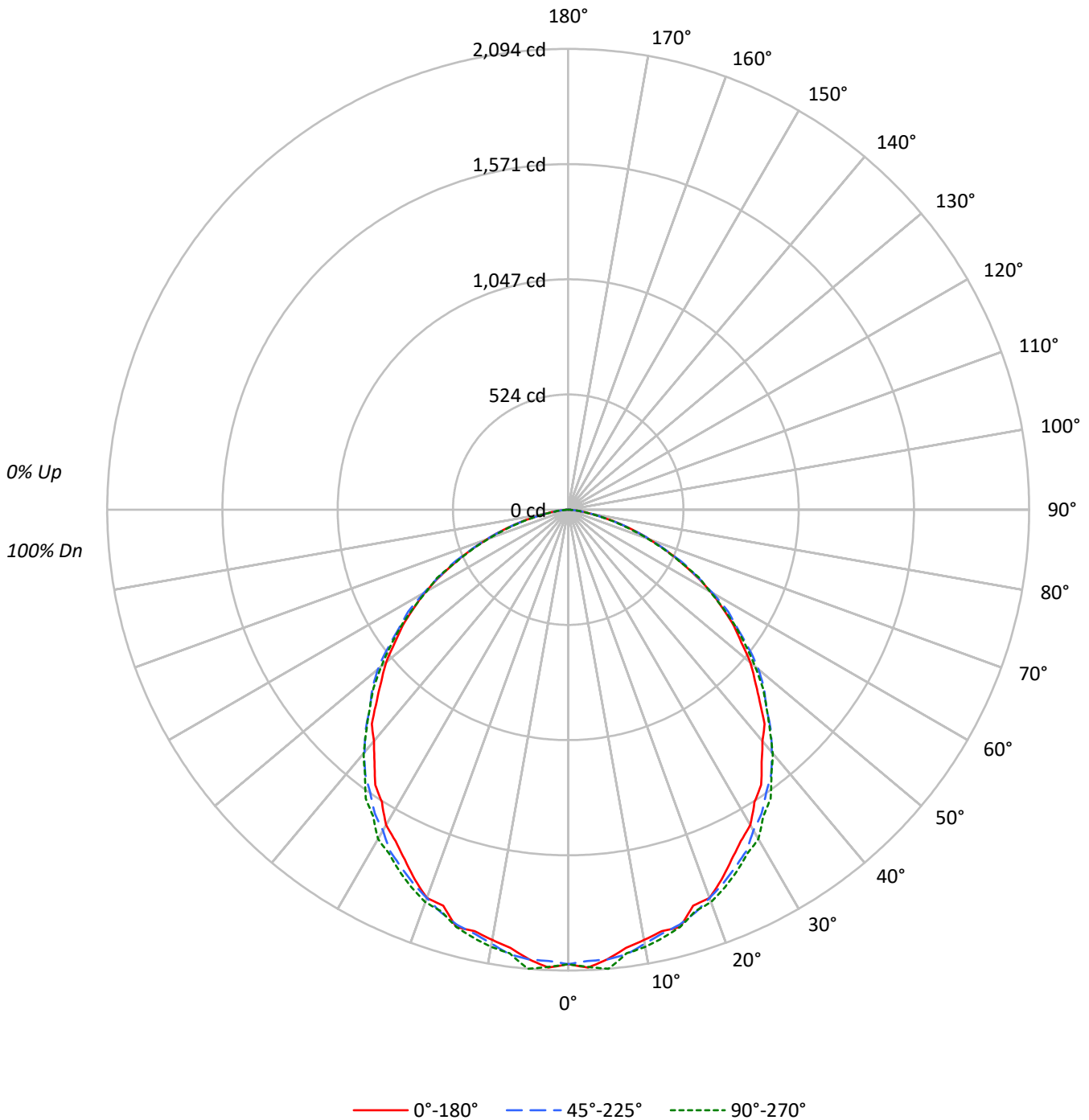
Lumens per Lamp: N/A
Luminaire Lumens: 5204.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5556	5556	5556
5°	5538	5540	5657
10°	5426	5473	5512
15°	5469	5439	5469
20°	5376	5376	5434
25°	5211	5325	5383
30°	5139	5230	5369
35°	5018	5150	5265
40°	4823	5055	5078
45°	4677	4843	4851
50°	4523	4728	4637
55°	4310	4394	4363
60°	4031	4070	3997
65°	3594	3685	3568
70°	3083	3094	3008
75°	2442	2436	2342
80°	1636	1590	1528
85°	889	880	824



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.2	3.7
10°-20°	550.5	10.6
20°-30°	824.7	15.8
30°-40°	977.4	18.8
40°-50°	979.3	18.8
50°-60°	831.2	16.0
60°-70°	560.4	10.8
70°-80°	246.2	4.7
80°-90°	40.0	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°	1569.4	30.2
0°-40°	2546.8	48.9
0°-60°	4357.3	83.7
0°-90°	5204.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5204.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2065	2065	2065	2065	2065	
5°	2050	2045	2051	2045	2094	193
15°	1963	1940	1952	1962	1963	547
25°	1755	1765	1793	1817	1813	811
35°	1528	1532	1568	1604	1603	948
45°	1229	1252	1273	1306	1275	951
55°	919	913	937	930	930	817
65°	564	557	579	557	560	561
75°	235	230	234	218	225	252
85°	29	28	28	28	27	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2064.8	2064.8	2064.8	2064.8	2064.8
2.5°	2082.7	2066.9	2052.3	2069.3	2079.7
5°	2050.2	2045.4	2051.0	2044.8	2094.1
7.5°	2008.0	2026.4	2037.1	2030.4	2033.4
10°	1985.6	1979.2	2003.0	2019.5	2017.1
12.5°	1961.6	1971.2	1972.6	1990.4	1992.0
15°	1963.0	1940.3	1952.3	1962.4	1963.2
17.5°	1886.7	1911.3	1919.5	1942.7	1913.9
20°	1877.4	1859.5	1877.4	1901.1	1897.4
22.5°	1820.1	1800.1	1838.5	1859.5	1858.2
25°	1755.0	1764.6	1793.4	1816.9	1813.1
27.5°	1698.0	1709.2	1750.2	1782.5	1761.7
30°	1654.0	1648.4	1683.0	1711.8	1727.8
32.5°	1575.3	1595.6	1636.1	1664.6	1649.5
35°	1527.6	1532.1	1567.6	1603.9	1602.8
37.5°	1444.2	1465.2	1515.1	1525.2	1515.9
40°	1373.0	1394.1	1439.1	1450.0	1445.5
42.5°	1320.5	1324.2	1362.9	1375.4	1355.4
45°	1229.0	1252.0	1272.7	1305.5	1274.6
47.5°	1151.2	1161.8	1206.6	1215.4	1199.2
50°	1080.5	1084.3	1129.3	1118.4	1107.7
52.5°	991.8	1007.5	1032.8	1030.7	1018.1
55°	918.7	912.6	936.6	930.2	929.9
57.5°	831.0	841.7	861.4	851.3	835.0
60°	748.9	749.1	756.3	744.9	742.7
62.5°	657.4	660.6	662.2	648.1	671.0
65°	564.4	556.9	578.8	556.7	560.4
67.5°	478.8	482.5	480.4	466.5	471.9
70°	391.9	396.7	393.2	377.5	382.3
72.5°	312.5	306.6	310.3	290.6	299.7
75°	234.9	230.1	234.3	217.8	225.3
77.5°	160.0	163.7	161.0	152.2	157.3
80°	105.6	102.6	102.6	97.6	98.6
82.5°	61.6	58.7	57.9	56.3	58.7
85°	28.8	28.0	28.5	27.7	26.7
87.5°	10.4	10.7	10.7	10.1	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)