

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: P589479

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589479
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-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

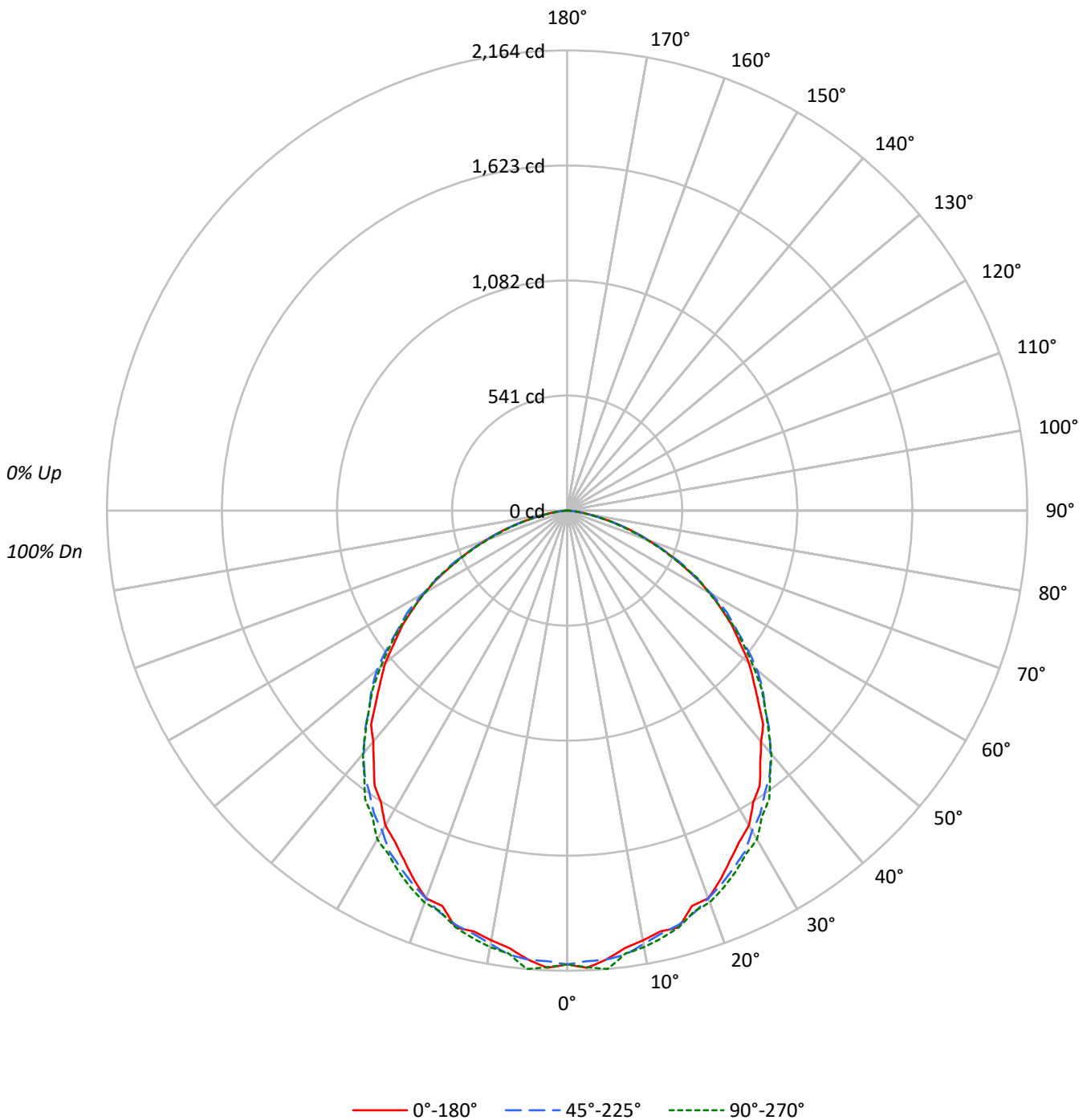
Lumens per Lamp: N/A
Luminaire Lumens: 5378.0 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589479

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-82-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589479

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-82-86-EDD

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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5742	5742	5742
5°	5723	5725	5846
10°	5607	5656	5696
15°	5651	5621	5652
20°	5556	5556	5615
25°	5385	5503	5564
30°	5311	5404	5548
35°	5186	5322	5441
40°	4984	5224	5247
45°	4834	5006	5013
50°	4675	4886	4793
55°	4454	4541	4509
60°	4165	4207	4131
65°	3714	3808	3687
70°	3186	3198	3109
75°	2523	2518	2420
80°	1691	1644	1579
85°	920	911	852



TEST NUMBER: P589479

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-82-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.7	3.7
10°-20°	568.9	10.6
20°-30°	852.3	15.8
30°-40°	1010.1	18.8
40°-50°	1012.0	18.8
50°-60°	859.0	16.0
60°-70°	579.1	10.8
70°-80°	254.5	4.7
80°-90°	41.4	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°	1621.9	30.2
0°-40°	2632.0	48.9
0°-60°	4503.0	83.7
0°-90°	5378.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5378.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2134	2134	2134	2134	2134	
5°	2119	2114	2120	2113	2164	200
15°	2029	2005	2018	2028	2029	565
25°	1814	1824	1853	1878	1874	838
35°	1579	1583	1620	1658	1656	980
45°	1270	1294	1315	1349	1317	983
55°	949	943	968	961	961	845
65°	583	576	598	575	579	580
75°	243	238	242	225	233	260
85°	30	29	30	29	28	43
90°	0	0	0	0	0	



TEST NUMBER: P589479

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-82-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2133.9	2133.9	2133.9	2133.9	2133.9
2.5°	2152.3	2136.1	2120.9	2138.5	2149.3
5°	2118.7	2113.7	2119.5	2113.2	2164.2
7.5°	2075.2	2094.2	2105.2	2098.3	2101.3
10°	2052.0	2045.4	2069.9	2087.0	2084.5
12.5°	2027.2	2037.1	2038.5	2057.0	2058.6
15°	2028.6	2005.2	2017.6	2028.1	2028.9
17.5°	1949.8	1975.2	1983.7	2007.7	1977.9
20°	1940.2	1921.7	1940.2	1964.7	1960.8
22.5°	1880.9	1860.3	1899.9	1921.7	1920.3
25°	1813.7	1823.6	1853.4	1877.6	1873.8
27.5°	1754.7	1766.3	1808.7	1842.1	1820.6
30°	1709.3	1703.5	1739.3	1769.1	1785.6
32.5°	1628.0	1649.0	1690.8	1720.3	1704.6
35°	1578.7	1583.4	1620.0	1657.5	1656.4
37.5°	1492.5	1514.2	1565.7	1576.2	1566.6
40°	1418.9	1440.7	1487.2	1498.5	1493.8
42.5°	1364.6	1368.5	1408.4	1421.4	1400.7
45°	1270.1	1293.8	1315.3	1349.2	1317.2
47.5°	1189.7	1200.7	1247.0	1256.1	1239.3
50°	1116.7	1120.5	1167.1	1155.8	1144.8
52.5°	1024.9	1041.2	1067.3	1065.1	1052.2
55°	949.4	943.1	967.9	961.3	961.0
57.5°	858.8	869.8	890.2	879.7	862.9
60°	773.9	774.2	781.6	769.8	767.6
62.5°	679.4	682.7	684.4	669.8	693.5
65°	583.3	575.5	598.1	575.3	579.1
67.5°	494.8	498.7	496.5	482.1	487.7
70°	405.0	410.0	406.4	390.1	395.1
72.5°	322.9	316.8	320.7	300.3	309.7
75°	242.7	237.8	242.2	225.1	232.8
77.5°	165.3	169.2	166.4	157.3	162.6
80°	109.1	106.1	106.1	100.8	101.9
82.5°	63.6	60.6	59.8	58.1	60.6
85°	29.8	28.9	29.5	28.7	27.6
87.5°	10.7	11.0	11.0	10.5	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)