

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: P589469

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589469
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

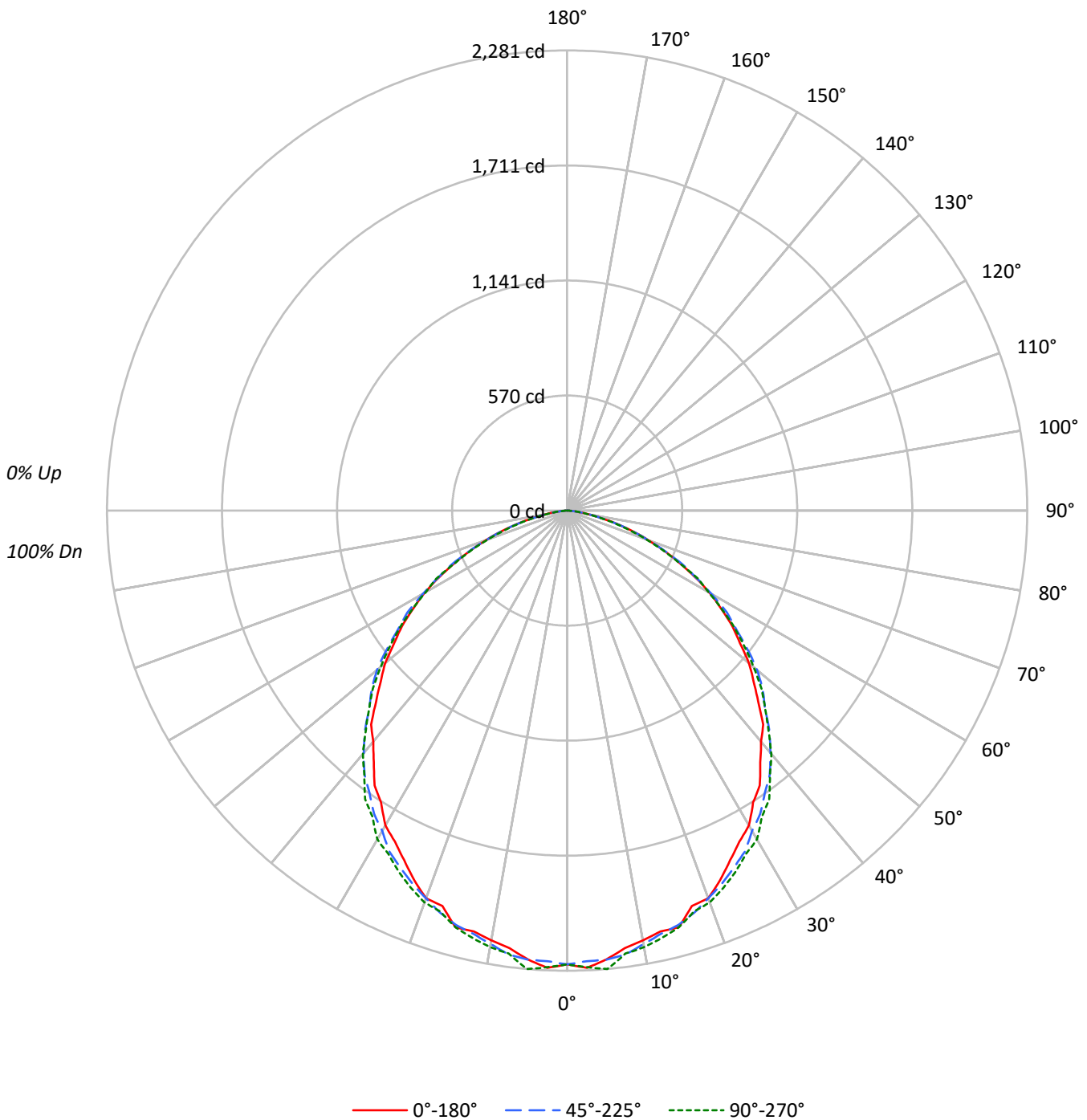
Lumens per Lamp: N/A
Luminaire Lumens: 5669.0 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589469

CATALOG NUMBER: FMR-24-2-LD4-3STD-35-UNV-81-84-EDD

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°	6053	6053	6053
5°	6033	6035	6162
10°	5911	5962	6004
15°	5957	5925	5958
20°	5857	5857	5919
25°	5676	5801	5865
30°	5599	5697	5849
35°	5467	5610	5736
40°	5254	5507	5532
45°	5095	5276	5284
50°	4928	5150	5052
55°	4695	4787	4753
60°	4391	4434	4355
65°	3915	4015	3887
70°	3359	3371	3277
75°	2661	2654	2551
80°	1782	1733	1666
85°	969	960	895



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.6	3.7
10°-20°	599.6	10.6
20°-30°	898.4	15.8
30°-40°	1064.8	18.8
40°-50°	1066.7	18.8
50°-60°	905.5	16.0
60°-70°	610.5	10.8
70°-80°	268.3	4.7
80°-90°	43.6	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°	1709.6	30.2
0°-40°	2774.4	48.9
0°-60°	4746.7	83.7
0°-90°	5669.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5669.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2249	2249	2249	2249	2249	
5°	2233	2228	2234	2228	2281	211
15°	2138	2114	2127	2138	2139	596
25°	1912	1922	1954	1979	1975	884
35°	1664	1669	1708	1747	1746	1033
45°	1339	1364	1386	1422	1388	1036
55°	1001	994	1020	1013	1013	890
65°	615	607	630	606	610	611
75°	256	251	255	237	245	274
85°	31	30	31	30	29	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2249.3	2249.3	2249.3	2249.3	2249.3
2.5°	2268.8	2251.6	2235.7	2254.3	2265.6
5°	2233.3	2228.1	2234.2	2227.5	2281.3
7.5°	2187.5	2207.5	2219.1	2211.9	2215.0
10°	2163.1	2156.1	2181.9	2199.9	2197.3
12.5°	2136.9	2147.4	2148.8	2168.3	2170.0
15°	2138.4	2113.7	2126.8	2137.8	2138.7
17.5°	2055.3	2082.0	2091.0	2116.3	2084.9
20°	2045.1	2025.7	2045.1	2071.0	2066.9
22.5°	1982.7	1960.9	2002.7	2025.7	2024.2
25°	1911.8	1922.3	1953.7	1979.2	1975.2
27.5°	1849.7	1861.9	1906.6	1941.8	1919.1
30°	1801.8	1795.7	1833.4	1864.8	1882.2
32.5°	1716.1	1738.2	1782.3	1813.4	1796.8
35°	1664.1	1669.1	1707.7	1747.2	1746.0
37.5°	1573.2	1596.2	1650.5	1661.5	1651.3
40°	1495.7	1518.6	1567.7	1579.6	1574.7
42.5°	1438.5	1442.5	1484.6	1498.3	1476.5
45°	1338.8	1363.8	1386.5	1422.2	1388.5
47.5°	1254.0	1265.7	1314.4	1324.0	1306.3
50°	1177.1	1181.1	1230.2	1218.3	1206.7
52.5°	1080.4	1097.5	1125.1	1122.8	1109.1
55°	1000.8	994.1	1020.3	1013.3	1013.0
57.5°	905.2	916.9	938.4	927.3	909.6
60°	815.8	816.1	823.9	811.4	809.1
62.5°	716.2	719.7	721.4	706.0	731.0
65°	614.8	606.7	630.5	606.4	610.5
67.5°	521.6	525.7	523.3	508.2	514.0
70°	426.9	432.1	428.4	411.2	416.5
72.5°	340.4	334.0	338.1	316.6	326.4
75°	255.9	250.6	255.3	237.3	245.4
77.5°	174.3	178.3	175.4	165.8	171.3
80°	115.0	111.8	111.8	106.3	107.5
82.5°	67.1	63.9	63.0	61.3	63.9
85°	31.4	30.5	31.1	30.2	29.0
87.5°	11.3	11.6	11.6	11.0	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)