

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: P589666

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589666
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-35-UNV-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

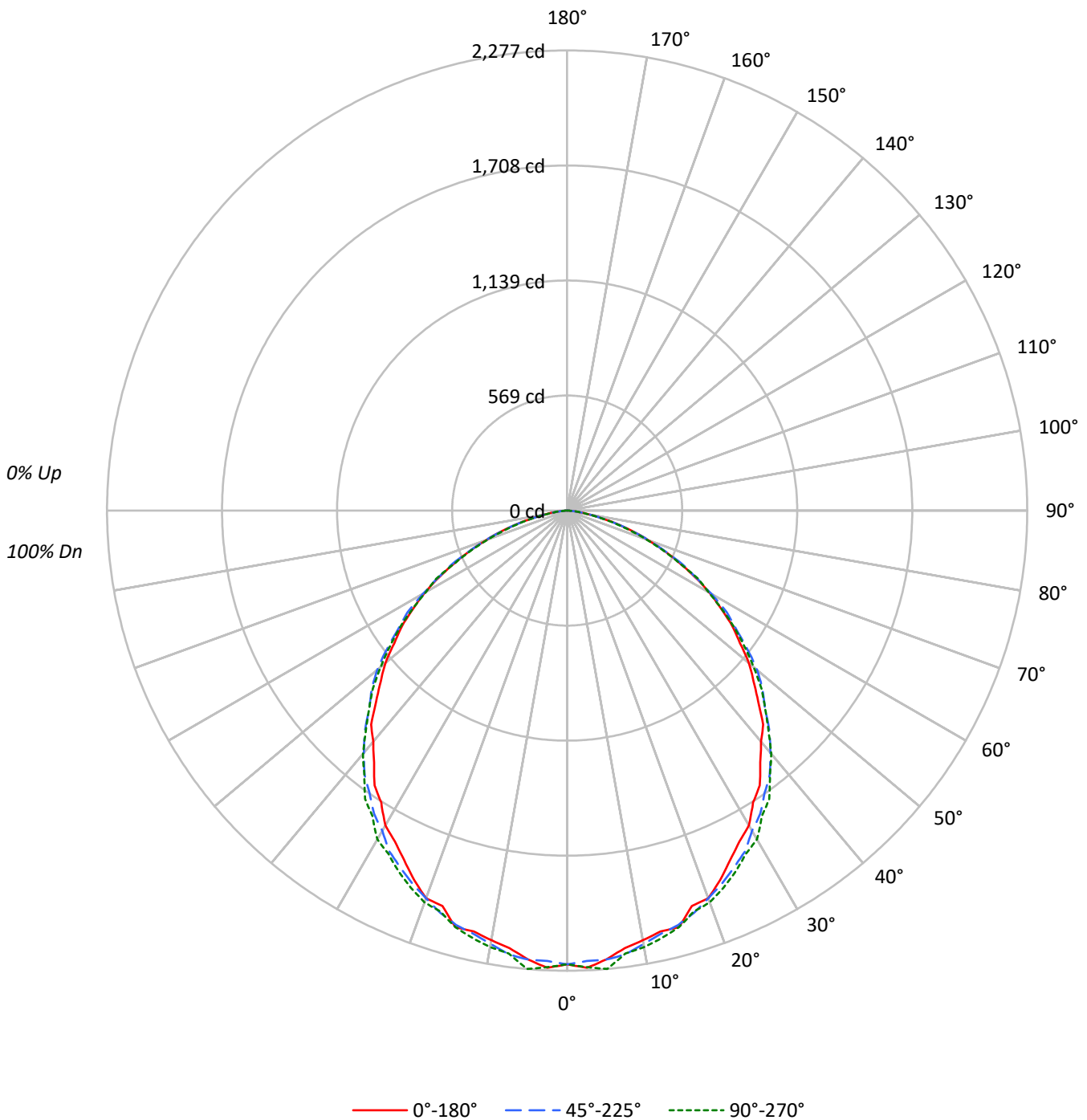
Lumens per Lamp: N/A
Luminaire Lumens: 5658.0 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6041	6041	6041
5°	6021	6024	6150
10°	5899	5951	5993
15°	5946	5913	5947
20°	5845	5845	5907
25°	5665	5790	5853
30°	5588	5686	5837
35°	5456	5599	5725
40°	5244	5497	5521
45°	5085	5266	5274
50°	4918	5140	5042
55°	4686	4777	4743
60°	4382	4426	4346
65°	3907	4007	3880
70°	3353	3364	3271
75°	2655	2649	2546
80°	1779	1729	1661
85°	966	957	895



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.2	3.7
10°-20°	598.5	10.6
20°-30°	896.7	15.8
30°-40°	1062.7	18.8
40°-50°	1064.7	18.8
50°-60°	903.7	16.0
60°-70°	609.3	10.8
70°-80°	267.7	4.7
80°-90°	43.5	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°	1706.3	30.2
0°-40°	2769.1	48.9
0°-60°	4737.5	83.7
0°-90°	5658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5658.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2245	2245	2245	2245	2245	
5°	2229	2224	2230	2223	2277	210
15°	2134	2110	2123	2134	2134	595
25°	1908	1919	1950	1975	1971	882
35°	1661	1666	1704	1744	1743	1031
45°	1336	1361	1384	1419	1386	1034
55°	999	992	1018	1011	1011	889
65°	614	606	629	605	609	610
75°	255	250	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°	2245.0	2245.0	2245.0	2245.0	2245.0
2.5°	2264.4	2247.3	2231.3	2249.9	2261.2
5°	2229.0	2223.8	2229.9	2223.2	2276.8
7.5°	2183.2	2203.2	2214.8	2207.6	2210.7
10°	2158.9	2151.9	2177.7	2195.7	2193.1
12.5°	2132.8	2143.2	2144.7	2164.1	2165.8
15°	2134.2	2109.6	2122.6	2133.6	2134.5
17.5°	2051.3	2078.0	2087.0	2112.2	2080.9
20°	2041.2	2021.8	2041.2	2067.0	2062.9
22.5°	1978.9	1957.1	1998.9	2021.8	2020.3
25°	1908.1	1918.6	1949.9	1975.4	1971.3
27.5°	1846.1	1858.3	1902.9	1938.0	1915.4
30°	1798.3	1792.2	1829.9	1861.2	1878.6
32.5°	1712.8	1734.8	1778.9	1809.9	1793.4
35°	1660.9	1665.8	1704.4	1743.8	1742.6
37.5°	1570.2	1593.1	1647.3	1658.3	1648.1
40°	1492.8	1515.7	1564.7	1576.5	1571.6
42.5°	1435.7	1439.7	1481.8	1495.4	1473.6
45°	1336.2	1361.2	1383.8	1419.4	1385.8
47.5°	1251.6	1263.2	1311.9	1321.5	1303.8
50°	1174.8	1178.9	1227.8	1216.0	1204.4
52.5°	1078.3	1095.4	1122.9	1120.6	1107.0
55°	998.9	992.2	1018.3	1011.3	1011.0
57.5°	903.5	915.1	936.5	925.5	907.8
60°	814.2	814.5	822.3	809.9	807.5
62.5°	714.8	718.3	720.0	704.6	729.6
65°	613.6	605.5	629.3	605.2	609.3
67.5°	520.6	524.6	522.3	507.3	513.0
70°	426.1	431.3	427.5	410.4	415.7
72.5°	339.7	333.3	337.4	315.9	325.8
75°	255.4	250.1	254.8	236.8	244.9
77.5°	173.9	178.0	175.1	165.5	171.0
80°	114.8	111.6	111.6	106.1	107.2
82.5°	67.0	63.8	62.9	61.2	63.8
85°	31.3	30.4	31.0	30.1	29.0
87.5°	11.3	11.6	11.6	11.0	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)