

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: P589463

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589463
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-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

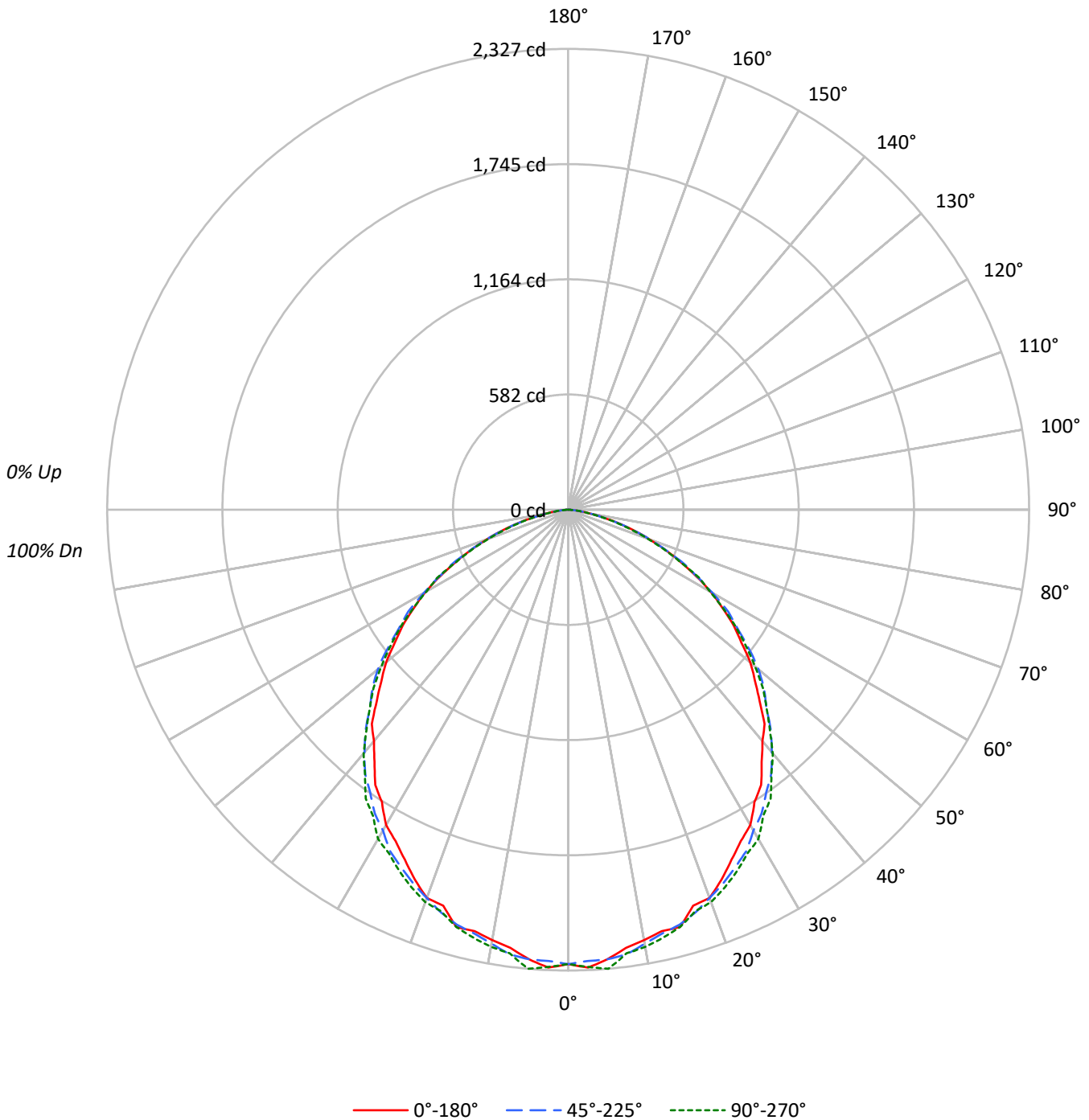
Lumens per Lamp: N/A
Luminaire Lumens: 5783.0 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6174	6174	6174
5°	6154	6156	6286
10°	6030	6082	6125
15°	6077	6044	6078
20°	5974	5974	6038
25°	5791	5918	5983
30°	5711	5812	5966
35°	5577	5723	5851
40°	5360	5618	5643
45°	5198	5383	5390
50°	5027	5254	5153
55°	4790	4883	4848
60°	4479	4524	4442
65°	3994	4096	3965
70°	3426	3438	3342
75°	2714	2707	2602
80°	1818	1768	1698
85°	988	979	914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.8	3.7
10°-20°	611.7	10.6
20°-30°	916.5	15.8
30°-40°	1086.2	18.8
40°-50°	1088.2	18.8
50°-60°	923.7	16.0
60°-70°	622.8	10.8
70°-80°	273.6	4.7
80°-90°	44.5	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°	1744.0	30.2
0°-40°	2830.2	48.9
0°-60°	4842.1	83.7
0°-90°	5783.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5783.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2294	2294	2294	2294	2294	
5°	2278	2273	2279	2272	2327	215
15°	2181	2156	2170	2181	2182	608
25°	1950	1961	1993	2019	2015	902
35°	1698	1703	1742	1782	1781	1054
45°	1366	1391	1414	1451	1416	1057
55°	1021	1014	1041	1034	1033	908
65°	627	619	643	619	623	624
75°	261	256	260	242	250	280
85°	32	31	32	31	30	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2294.5	2294.5	2294.5	2294.5	2294.5
2.5°	2314.4	2296.9	2280.6	2299.6	2311.1
5°	2278.3	2272.9	2279.1	2272.3	2327.1
7.5°	2231.4	2251.9	2263.7	2256.3	2259.6
10°	2206.6	2199.4	2225.8	2244.2	2241.5
12.5°	2179.9	2190.6	2192.0	2211.9	2213.7
15°	2181.4	2156.2	2169.5	2180.8	2181.7
17.5°	2096.6	2123.9	2133.1	2158.9	2126.9
20°	2086.3	2066.4	2086.3	2112.6	2108.5
22.5°	2022.6	2000.4	2043.0	2066.4	2064.9
25°	1950.3	1961.0	1993.0	2019.0	2014.9
27.5°	1886.9	1899.3	1945.0	1980.8	1957.7
30°	1838.0	1831.8	1870.3	1902.3	1920.1
32.5°	1750.6	1773.1	1818.2	1849.9	1833.0
35°	1697.6	1702.6	1742.0	1782.3	1781.1
37.5°	1604.9	1628.3	1683.7	1694.9	1684.5
40°	1525.7	1549.2	1599.2	1611.4	1606.3
42.5°	1467.4	1471.5	1514.5	1528.4	1506.2
45°	1365.8	1391.2	1414.4	1450.8	1416.4
47.5°	1279.3	1291.1	1340.9	1350.7	1332.6
50°	1200.7	1204.9	1255.0	1242.8	1231.0
52.5°	1102.1	1119.6	1147.7	1145.3	1131.4
55°	1020.9	1014.1	1040.8	1033.7	1033.4
57.5°	923.4	935.3	957.2	946.0	927.9
60°	832.2	832.5	840.5	827.8	825.4
62.5°	730.6	734.1	735.9	720.2	745.7
65°	627.2	618.9	643.2	618.6	622.7
67.5°	532.1	536.2	533.9	518.5	524.4
70°	435.5	440.8	437.0	419.5	424.8
72.5°	347.2	340.7	344.8	322.9	333.0
75°	261.0	255.7	260.4	242.0	250.3
77.5°	177.8	181.9	178.9	169.2	174.8
80°	117.3	114.1	114.1	108.4	109.6
82.5°	68.4	65.2	64.3	62.5	65.2
85°	32.0	31.1	31.7	30.8	29.6
87.5°	11.6	11.9	11.9	11.3	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)