

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: P588909

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588909
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-LD4-1STD-35-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

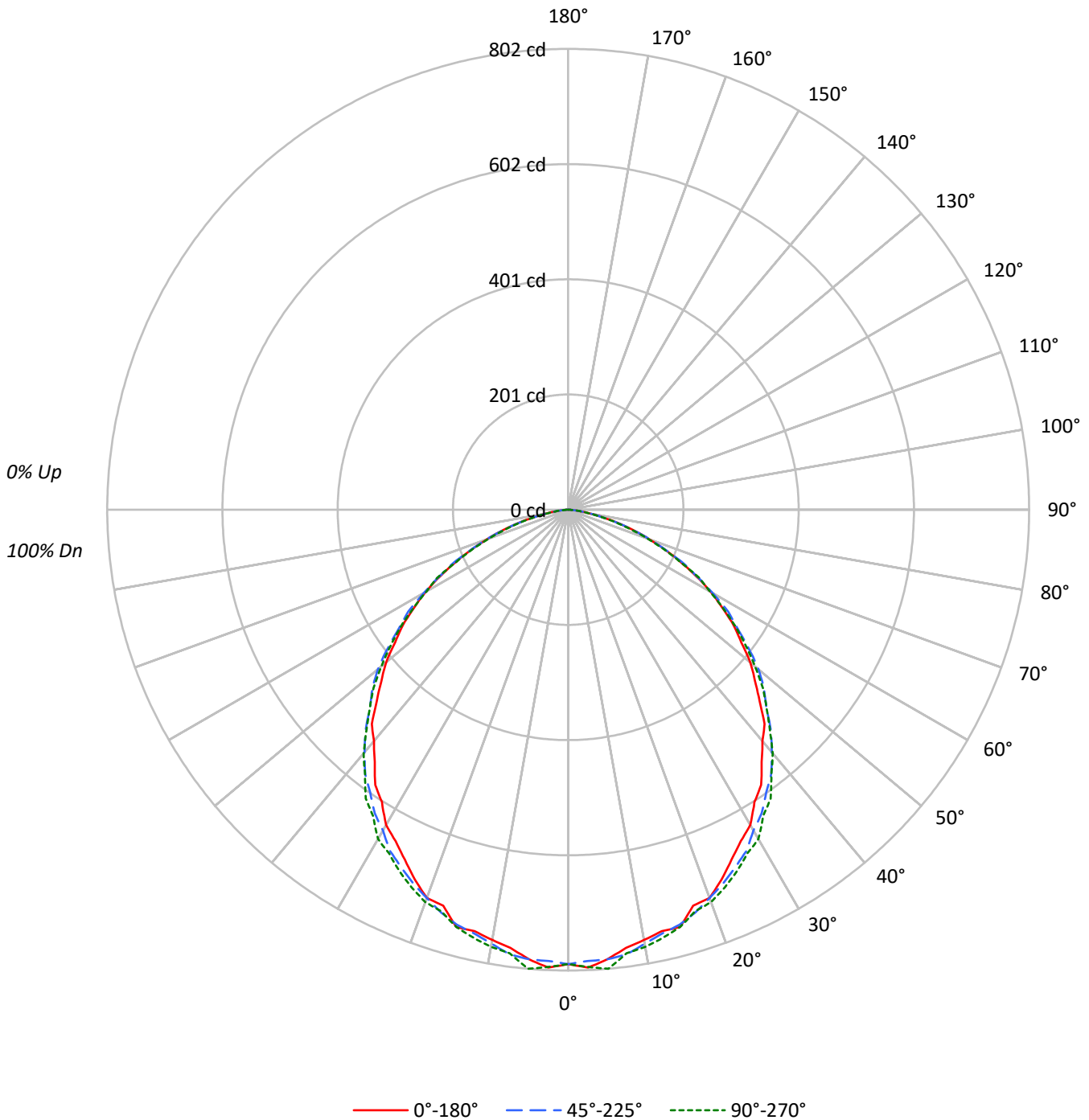
Lumens per Lamp: N/A
Luminaire Lumens: 1993.0 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	2128	2128	2128
5°	2121	2122	2166
10°	2078	2096	2111
15°	2094	2083	2095
20°	2059	2059	2081
25°	1996	2039	2062
30°	1968	2003	2056
35°	1922	1972	2016
40°	1847	1936	1945
45°	1791	1855	1858
50°	1732	1811	1776
55°	1650	1683	1671
60°	1544	1559	1531
65°	1376	1412	1366
70°	1181	1185	1152
75°	936	933	897
80°	626	609	586
85°	340	337	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.4	3.7
10°-20°	210.8	10.6
20°-30°	315.8	15.8
30°-40°	374.3	18.8
40°-50°	375.0	18.8
50°-60°	318.3	16.0
60°-70°	214.6	10.8
70°-80°	94.3	4.7
80°-90°	15.3	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°	601.0	30.2
0°-40°	975.4	48.9
0°-60°	1668.7	83.7
0°-90°	1993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1993.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	791	791	791	791	791	
5°	785	783	786	783	802	74
15°	752	743	748	752	752	209
25°	672	676	687	696	694	311
35°	585	587	600	614	614	363
45°	471	480	487	500	488	364
55°	352	350	359	356	356	313
65°	216	213	222	213	215	215
75°	90	88	90	83	86	96
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	790.8	790.8	790.8	790.8	790.8
2.5°	797.6	791.6	786.0	792.5	796.5
5°	785.2	783.3	785.5	783.1	802.0
7.5°	769.0	776.1	780.2	777.6	778.7
10°	760.4	758.0	767.1	773.4	772.5
12.5°	751.3	754.9	755.4	762.3	762.9
15°	751.8	743.1	747.7	751.6	751.9
17.5°	722.6	732.0	735.1	744.0	733.0
20°	719.0	712.2	719.0	728.1	726.7
22.5°	697.0	689.4	704.1	712.2	711.6
25°	672.1	675.8	686.8	695.8	694.4
27.5°	650.3	654.6	670.3	682.6	674.7
30°	633.4	631.3	644.6	655.6	661.7
32.5°	603.3	611.1	626.6	637.5	631.7
35°	585.0	586.8	600.4	614.2	613.8
37.5°	553.1	561.1	580.2	584.1	580.5
40°	525.8	533.9	551.1	555.3	553.6
42.5°	505.7	507.1	521.9	526.7	519.1
45°	470.7	479.5	487.4	500.0	488.1
47.5°	440.9	445.0	462.1	465.5	459.3
50°	413.8	415.2	432.5	428.3	424.2
52.5°	379.8	385.8	395.5	394.7	389.9
55°	351.8	349.5	358.7	356.2	356.1
57.5°	318.2	322.3	329.9	326.0	319.8
60°	286.8	286.9	289.7	285.3	284.5
62.5°	251.8	253.0	253.6	248.2	257.0
65°	216.1	213.3	221.7	213.2	214.6
67.5°	183.4	184.8	184.0	178.7	180.7
70°	150.1	151.9	150.6	144.6	146.4
72.5°	119.7	117.4	118.8	111.3	114.8
75°	90.0	88.1	89.7	83.4	86.3
77.5°	61.3	62.7	61.7	58.3	60.2
80°	40.4	39.3	39.3	37.4	37.8
82.5°	23.6	22.5	22.2	21.5	22.5
85°	11.0	10.7	10.9	10.6	10.2
87.5°	4.0	4.1	4.1	3.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)