

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: P588949

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-80-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588949
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-50-UNV-80-84-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

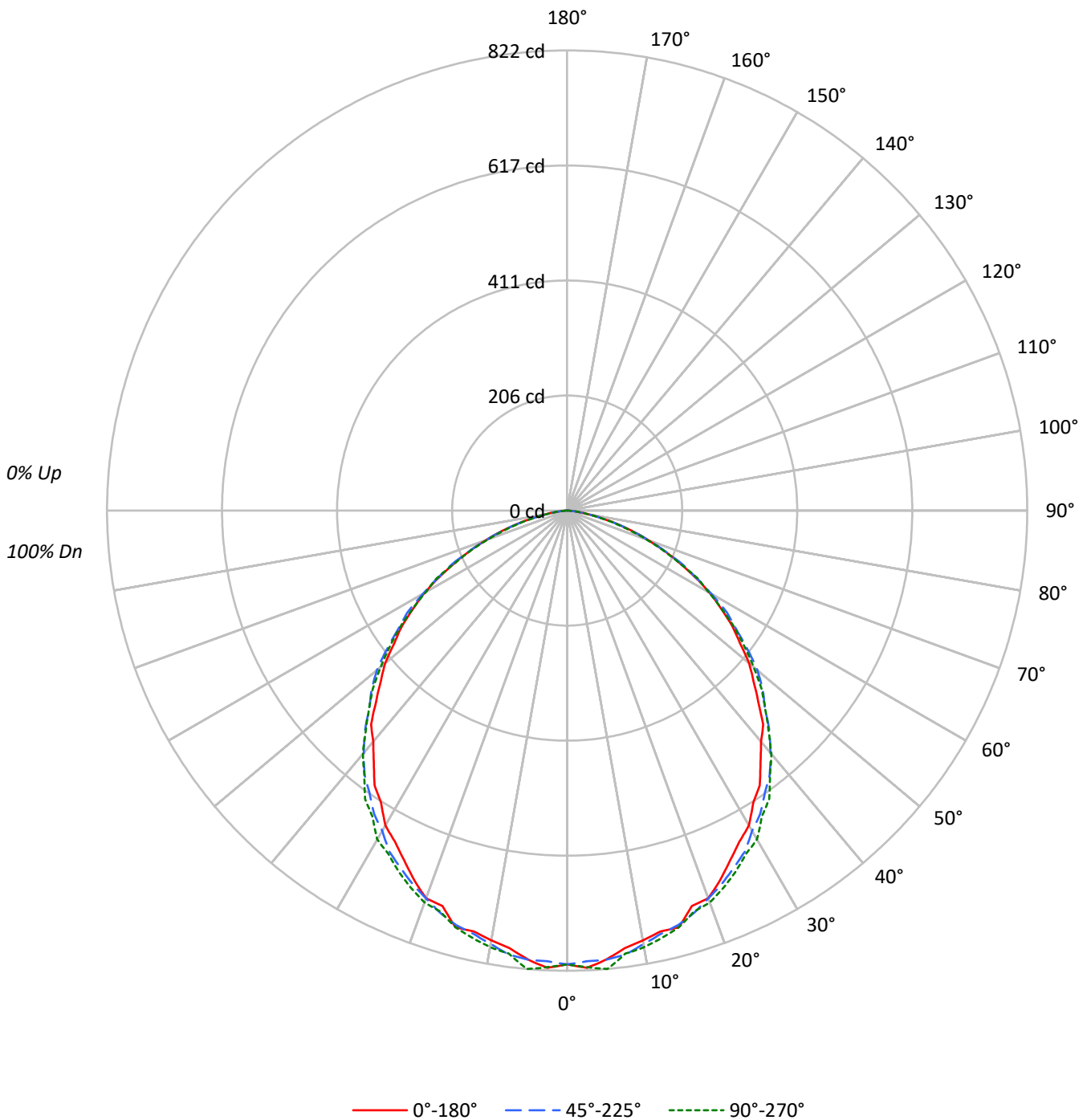
Lumens per Lamp: N/A
Luminaire Lumens: 2043.0 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2181	2181	2181
5°	2174	2175	2221
10°	2130	2149	2164
15°	2147	2135	2147
20°	2111	2111	2133
25°	2046	2091	2113
30°	2018	2053	2108
35°	1970	2022	2067
40°	1893	1985	1994
45°	1836	1902	1904
50°	1776	1856	1821
55°	1692	1725	1713
60°	1582	1598	1569
65°	1411	1447	1401
70°	1211	1215	1181
75°	959	957	919
80°	642	625	600
85°	349	346	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.2	3.7
10°-20°	216.1	10.6
20°-30°	323.8	15.8
30°-40°	383.7	18.8
40°-50°	384.4	18.8
50°-60°	326.3	16.0
60°-70°	220.0	10.8
70°-80°	96.7	4.7
80°-90°	15.7	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°	616.1	30.2
0°-40°	999.8	48.9
0°-60°	1710.6	83.7
0°-90°	2043.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2043.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	811	811	811	811	811	
5°	805	803	805	803	822	76
15°	771	762	766	770	771	215
25°	689	693	704	713	712	319
35°	600	602	615	630	629	372
45°	482	492	500	512	500	373
55°	361	358	368	365	365	321
65°	222	219	227	218	220	220
75°	92	90	92	86	88	99
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°	810.6	810.6	810.6	810.6	810.6
2.5°	817.6	811.4	805.7	812.4	816.5
5°	804.9	803.0	805.2	802.8	822.1
7.5°	788.3	795.5	799.7	797.1	798.3
10°	779.5	777.0	786.3	792.8	791.9
12.5°	770.1	773.9	774.4	781.4	782.0
15°	770.6	761.7	766.4	770.4	770.7
17.5°	740.7	750.3	753.6	762.7	751.4
20°	737.0	730.0	737.0	746.3	744.9
22.5°	714.5	706.7	721.8	730.0	729.5
25°	689.0	692.8	704.1	713.3	711.8
27.5°	666.6	671.0	687.1	699.8	691.6
30°	649.3	647.1	660.7	672.0	678.3
32.5°	618.5	626.4	642.3	653.5	647.5
35°	599.7	601.5	615.4	629.6	629.2
37.5°	567.0	575.2	594.8	598.8	595.1
40°	539.0	547.3	565.0	569.3	567.5
42.5°	518.4	519.9	535.0	540.0	532.1
45°	482.5	491.5	499.7	512.5	500.4
47.5°	451.9	456.1	473.7	477.2	470.8
50°	424.2	425.7	443.4	439.1	434.9
52.5°	389.3	395.5	405.5	404.6	399.7
55°	360.7	358.3	367.7	365.2	365.1
57.5°	326.2	330.4	338.2	334.2	327.8
60°	294.0	294.1	296.9	292.4	291.6
62.5°	258.1	259.4	260.0	254.4	263.4
65°	221.6	218.6	227.2	218.5	220.0
67.5°	188.0	189.4	188.6	183.2	185.3
70°	153.9	155.7	154.4	148.2	150.1
72.5°	122.7	120.4	121.8	114.1	117.6
75°	92.2	90.3	92.0	85.5	88.4
77.5°	62.8	64.3	63.2	59.8	61.8
80°	41.4	40.3	40.3	38.3	38.7
82.5°	24.2	23.0	22.7	22.1	23.0
85°	11.3	11.0	11.2	10.9	10.5
87.5°	4.1	4.2	4.2	4.0	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)