

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: P588910

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588910
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-93-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

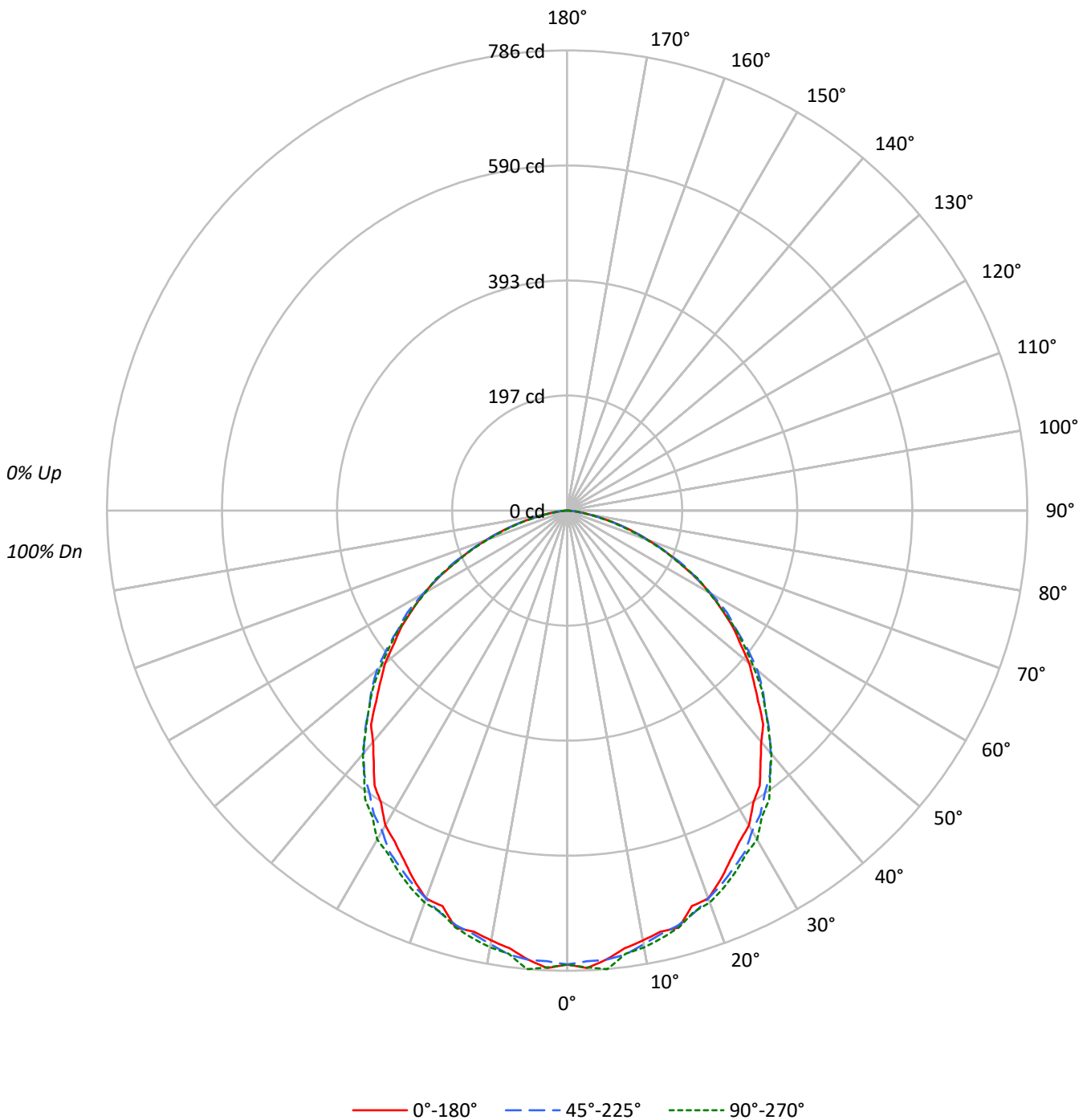
Lumens per Lamp: N/A
Luminaire Lumens: 1954.0 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P588910

CATALOG NUMBER: FMR-24-2-LD4-1STD-35-UNV-93-85-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	2086	2086	2086
5°	2079	2080	2124
10°	2037	2055	2070
15°	2053	2042	2054
20°	2019	2019	2040
25°	1957	1999	2021
30°	1930	1964	2016
35°	1884	1934	1977
40°	1811	1898	1907
45°	1756	1819	1821
50°	1698	1775	1741
55°	1619	1650	1638
60°	1513	1528	1501
65°	1349	1384	1340
70°	1158	1162	1129
75°	917	915	880
80°	614	597	573
85°	333	330	309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.9	3.7
10°-20°	206.7	10.6
20°-30°	309.7	15.8
30°-40°	367.0	18.8
40°-50°	367.7	18.8
50°-60°	312.1	16.0
60°-70°	210.4	10.8
70°-80°	92.5	4.7
80°-90°	15.0	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°	589.3	30.2
0°-40°	956.3	48.9
0°-60°	1636.1	83.7
0°-90°	1954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	770	768	770	768	786	73
15°	737	728	733	737	737	205
25°	659	663	673	682	681	305
35°	574	575	589	602	602	356
45°	462	470	478	490	479	357
55°	345	343	352	349	349	307
65°	212	209	217	209	210	211
75°	88	86	88	82	85	95
85°	11	10	11	10	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	775.3	775.3	775.3	775.3	775.3
2.5°	782.0	776.1	770.6	777.0	780.9
5°	769.8	768.0	770.1	767.8	786.3
7.5°	754.0	760.9	764.9	762.4	763.5
10°	745.6	743.2	752.1	758.3	757.4
12.5°	736.6	740.2	740.7	747.4	748.0
15°	737.1	728.5	733.1	736.9	737.2
17.5°	708.4	717.6	720.7	729.5	718.6
20°	704.9	698.2	704.9	713.8	712.4
22.5°	683.4	675.9	690.3	698.2	697.7
25°	659.0	662.6	673.4	682.2	680.8
27.5°	637.6	641.8	657.2	669.3	661.5
30°	621.0	618.9	632.0	642.8	648.8
32.5°	591.5	599.1	614.3	625.0	619.3
35°	573.6	575.3	588.6	602.2	601.8
37.5°	542.3	550.2	568.9	572.7	569.2
40°	515.5	523.4	540.4	544.5	542.8
42.5°	495.8	497.2	511.7	516.4	508.9
45°	461.5	470.1	477.9	490.2	478.6
47.5°	432.2	436.2	453.1	456.4	450.3
50°	405.7	407.1	424.0	419.9	415.9
52.5°	372.4	378.3	387.8	387.0	382.3
55°	345.0	342.7	351.7	349.3	349.2
57.5°	312.0	316.0	323.4	319.6	313.5
60°	281.2	281.3	284.0	279.7	278.9
62.5°	246.9	248.1	248.7	243.4	252.0
65°	211.9	209.1	217.3	209.0	210.4
67.5°	179.8	181.2	180.4	175.2	177.2
70°	147.2	149.0	147.7	141.7	143.5
72.5°	117.3	115.1	116.5	109.1	112.5
75°	88.2	86.4	88.0	81.8	84.6
77.5°	60.1	61.5	60.5	57.2	59.1
80°	39.6	38.5	38.5	36.6	37.0
82.5°	23.1	22.0	21.7	21.1	22.0
85°	10.8	10.5	10.7	10.4	10.0
87.5°	3.9	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)