

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: P588978

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588978
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-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

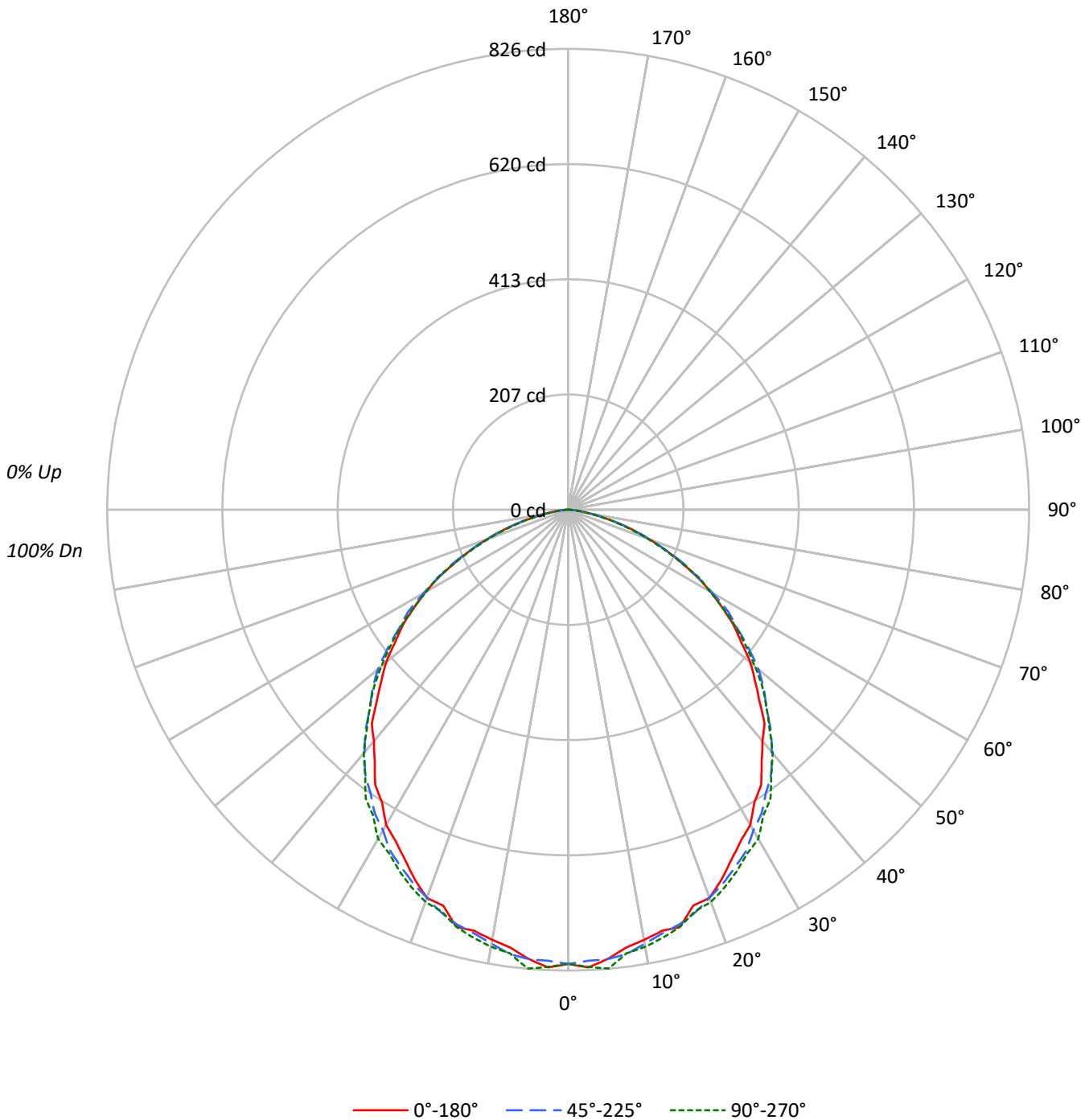
Lumens per Lamp: N/A
Luminaire Lumens: 2052.0 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	2191	2191	2191
5°	2184	2185	2230
10°	2140	2158	2173
15°	2156	2145	2157
20°	2120	2120	2143
25°	2055	2100	2123
30°	2027	2062	2117
35°	1979	2031	2076
40°	1902	1994	2002
45°	1844	1910	1913
50°	1784	1864	1829
55°	1700	1733	1720
60°	1589	1605	1576
65°	1417	1453	1407
70°	1216	1220	1186
75°	963	961	923
80°	645	628	603
85°	352	346	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	3.7
10°-20°	217.1	10.6
20°-30°	325.2	15.8
30°-40°	385.4	18.8
40°-50°	386.1	18.8
50°-60°	327.8	16.0
60°-70°	221.0	10.8
70°-80°	97.1	4.7
80°-90°	15.8	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°	618.8	30.2
0°-40°	1004.2	48.9
0°-60°	1718.1	83.7
0°-90°	2052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2052.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	814	814	814	814	814	
5°	808	806	809	806	826	76
15°	774	765	770	774	774	216
25°	692	696	707	716	715	320
35°	602	604	618	632	632	374
45°	485	494	502	515	503	375
55°	362	360	369	367	367	322
65°	222	220	228	220	221	221
75°	93	91	92	86	89	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°	814.2	814.2	814.2	814.2	814.2
2.5°	821.2	815.0	809.2	816.0	820.1
5°	808.4	806.5	808.7	806.3	825.7
7.5°	791.8	799.0	803.2	800.6	801.8
10°	783.0	780.4	789.8	796.3	795.4
12.5°	773.5	777.3	777.8	784.9	785.5
15°	774.0	765.1	769.8	773.8	774.1
17.5°	744.0	753.6	756.9	766.0	754.7
20°	740.3	733.2	740.3	749.6	748.2
22.5°	717.7	709.8	724.9	733.2	732.7
25°	692.0	695.8	707.2	716.4	714.9
27.5°	669.5	673.9	690.1	702.9	694.7
30°	652.2	650.0	663.6	675.0	681.3
32.5°	621.2	629.2	645.1	656.4	650.4
35°	602.4	604.1	618.1	632.4	632.0
37.5°	569.5	577.8	597.4	601.4	597.7
40°	541.4	549.7	567.5	571.8	570.0
42.5°	520.7	522.1	537.4	542.3	534.4
45°	484.6	493.7	501.9	514.8	502.6
47.5°	453.9	458.1	475.8	479.3	472.8
50°	426.1	427.5	445.3	441.0	436.8
52.5°	391.1	397.3	407.2	406.4	401.5
55°	362.3	359.8	369.3	366.8	366.7
57.5°	327.7	331.9	339.7	335.7	329.2
60°	295.3	295.4	298.2	293.7	292.9
62.5°	259.2	260.5	261.1	255.6	264.6
65°	222.5	219.6	228.2	219.5	221.0
67.5°	188.8	190.3	189.4	184.0	186.1
70°	154.5	156.4	155.1	148.9	150.7
72.5°	123.2	120.9	122.4	114.6	118.2
75°	92.6	90.7	92.4	85.9	88.8
77.5°	63.1	64.5	63.5	60.0	62.0
80°	41.6	40.5	40.5	38.5	38.9
82.5°	24.3	23.1	22.8	22.2	23.1
85°	11.4	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)