

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: P589526

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589526
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-50-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

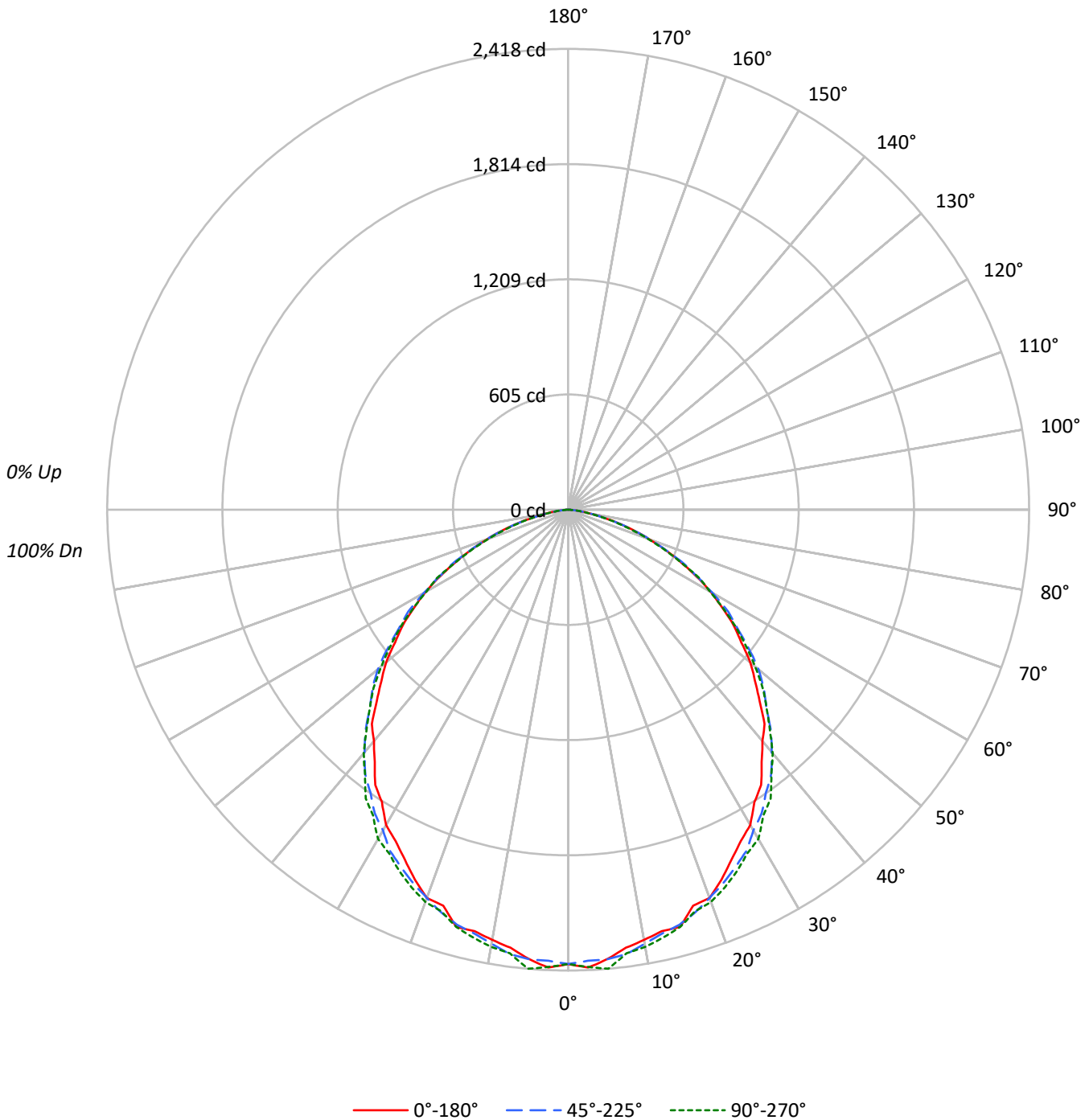
Lumens per Lamp: N/A
Luminaire Lumens: 6008.0 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6415	6415	6415
5°	6394	6396	6531
10°	6264	6319	6363
15°	6313	6279	6315
20°	6207	6207	6273
25°	6016	6148	6215
30°	5933	6038	6198
35°	5794	5945	6079
40°	5568	5836	5862
45°	5400	5592	5600
50°	5223	5458	5354
55°	4976	5073	5037
60°	4653	4700	4615
65°	4149	4255	4120
70°	3559	3572	3473
75°	2820	2812	2704
80°	1889	1836	1765
85°	1025	1016	951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.2	3.7
10°-20°	635.5	10.6
20°-30°	952.1	15.8
30°-40°	1128.5	18.8
40°-50°	1130.5	18.8
50°-60°	959.7	16.0
60°-70°	647.0	10.8
70°-80°	284.3	4.7
80°-90°	46.2	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°	1811.9	30.2
0°-40°	2940.3	48.9
0°-60°	5030.5	83.7
0°-90°	6008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6008.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2384	2384	2384	2384	2384	
5°	2367	2361	2368	2361	2418	223
15°	2266	2240	2254	2266	2267	631
25°	2026	2037	2070	2098	2093	937
35°	1764	1769	1810	1852	1850	1095
45°	1419	1445	1469	1507	1472	1098
55°	1061	1054	1081	1074	1074	943
65°	652	643	668	643	647	648
75°	271	266	270	252	260	291
85°	33	32	33	32	31	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2383.8	2383.8	2383.8	2383.8	2383.8
2.5°	2404.4	2386.3	2369.4	2389.1	2401.1
5°	2366.9	2361.4	2367.8	2360.7	2417.7
7.5°	2318.3	2339.5	2351.8	2344.1	2347.5
10°	2292.4	2285.0	2312.4	2331.5	2328.7
12.5°	2264.7	2275.8	2277.3	2297.9	2299.8
15°	2266.2	2240.1	2253.9	2265.6	2266.6
17.5°	2178.2	2206.5	2216.1	2242.9	2209.6
20°	2167.4	2146.8	2167.4	2194.8	2190.5
22.5°	2101.3	2078.2	2122.5	2146.8	2145.3
25°	2026.2	2037.3	2070.5	2097.6	2093.3
27.5°	1960.3	1973.2	2020.6	2057.9	2033.9
30°	1909.5	1903.1	1943.1	1976.3	1994.8
32.5°	1818.7	1842.1	1888.9	1921.8	1904.3
35°	1763.6	1768.9	1809.8	1851.7	1850.4
37.5°	1667.3	1691.6	1749.2	1760.9	1750.1
40°	1585.1	1609.4	1661.4	1674.1	1668.8
42.5°	1524.5	1528.8	1573.4	1587.9	1564.8
45°	1418.9	1445.4	1469.4	1507.2	1471.5
47.5°	1329.0	1341.3	1393.1	1403.2	1384.4
50°	1247.5	1251.8	1303.8	1291.2	1278.9
52.5°	1145.0	1163.1	1192.4	1189.9	1175.4
55°	1060.6	1053.6	1081.3	1073.9	1073.6
57.5°	959.4	971.7	994.5	982.8	964.0
60°	864.6	864.9	873.2	860.0	857.5
62.5°	759.0	762.7	764.5	748.2	774.7
65°	651.6	643.0	668.2	642.7	647.0
67.5°	552.8	557.1	554.6	538.6	544.8
70°	452.4	458.0	454.0	435.8	441.4
72.5°	360.7	354.0	358.3	335.5	346.0
75°	271.2	265.6	270.5	251.5	260.1
77.5°	184.7	189.0	185.9	175.7	181.6
80°	121.9	118.5	118.5	112.7	113.9
82.5°	71.1	67.7	66.8	64.9	67.7
85°	33.2	32.3	32.9	32.0	30.8
87.5°	12.0	12.3	12.3	11.7	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)