

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: P589683

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589683
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-LD4-4LO-35-UNV-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

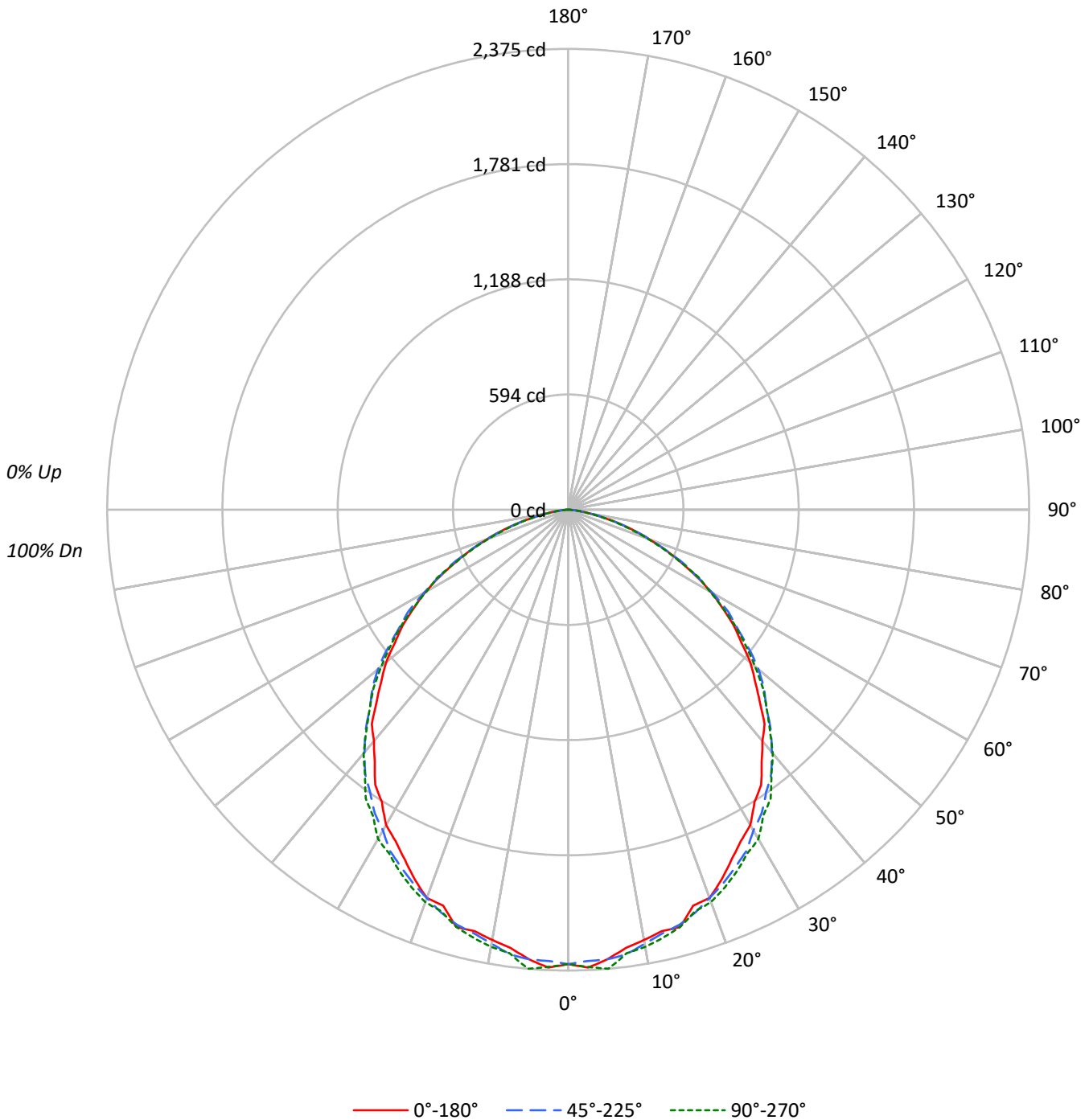
Lumens per Lamp: N/A
Luminaire Lumens: 5902.0 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6302	6302	6302
5°	6281	6283	6415
10°	6154	6207	6251
15°	6202	6169	6203
20°	6097	6097	6162
25°	5910	6039	6105
30°	5829	5931	6089
35°	5691	5841	5972
40°	5470	5733	5759
45°	5305	5493	5501
50°	5130	5362	5259
55°	4888	4983	4948
60°	4571	4617	4534
65°	4076	4180	4047
70°	3497	3509	3412
75°	2770	2764	2656
80°	1855	1804	1734
85°	1010	1000	932



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.3	3.7
10°-20°	624.3	10.6
20°-30°	935.3	15.8
30°-40°	1108.6	18.8
40°-50°	1110.6	18.8
50°-60°	942.7	16.0
60°-70°	635.6	10.8
70°-80°	279.3	4.7
80°-90°	45.4	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°	1779.9	30.2
0°-40°	2888.5	48.9
0°-60°	4941.8	83.7
0°-90°	5902.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2342	2342	2342	2342	2342	
5°	2325	2320	2326	2319	2375	219
15°	2226	2201	2214	2226	2227	620
25°	1990	2001	2034	2061	2056	920
35°	1732	1738	1778	1819	1818	1076
45°	1394	1420	1444	1481	1446	1078
55°	1042	1035	1062	1055	1055	927
65°	640	632	656	631	636	637
75°	266	261	266	247	256	285
85°	33	32	32	31	30	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2341.8	2341.8	2341.8	2341.8	2341.8
2.5°	2362.0	2344.2	2327.6	2346.9	2358.7
5°	2325.1	2319.7	2326.0	2319.1	2375.0
7.5°	2277.4	2298.2	2310.3	2302.8	2306.1
10°	2252.0	2244.7	2271.6	2290.4	2287.6
12.5°	2224.8	2235.6	2237.1	2257.4	2259.2
15°	2226.3	2200.6	2214.2	2225.7	2226.6
17.5°	2139.8	2167.6	2177.0	2203.3	2170.6
20°	2129.2	2108.9	2129.2	2156.1	2151.9
22.5°	2064.2	2041.5	2085.1	2108.9	2107.4
25°	1990.4	2001.3	2034.0	2060.6	2056.3
27.5°	1925.7	1938.4	1985.0	2021.6	1998.0
30°	1875.8	1869.5	1908.8	1941.4	1959.6
32.5°	1786.6	1809.6	1855.6	1887.9	1870.7
35°	1732.5	1737.7	1777.9	1819.0	1817.8
37.5°	1637.9	1661.8	1718.3	1729.8	1719.2
40°	1557.1	1581.0	1632.1	1644.5	1639.4
42.5°	1497.6	1501.8	1545.7	1559.9	1537.2
45°	1393.9	1419.9	1443.5	1480.6	1445.6
47.5°	1305.6	1317.7	1368.5	1378.5	1360.0
50°	1225.5	1229.7	1280.8	1268.4	1256.3
52.5°	1124.8	1142.6	1171.3	1168.9	1154.7
55°	1041.9	1035.0	1062.2	1054.9	1054.6
57.5°	942.5	954.5	976.9	965.4	947.0
60°	849.3	849.6	857.8	844.8	842.4
62.5°	745.6	749.2	751.1	735.0	761.0
65°	640.1	631.6	656.4	631.3	635.6
67.5°	543.0	547.3	544.8	529.1	535.2
70°	444.5	449.9	446.0	428.1	433.6
72.5°	354.4	347.7	351.9	329.6	339.9
75°	266.4	260.9	265.8	247.0	255.5
77.5°	181.4	185.6	182.6	172.6	178.4
80°	119.7	116.4	116.4	110.7	111.9
82.5°	69.8	66.5	65.6	63.8	66.5
85°	32.7	31.7	32.4	31.4	30.2
87.5°	11.8	12.1	12.1	11.5	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)