

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: P589518

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589518
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

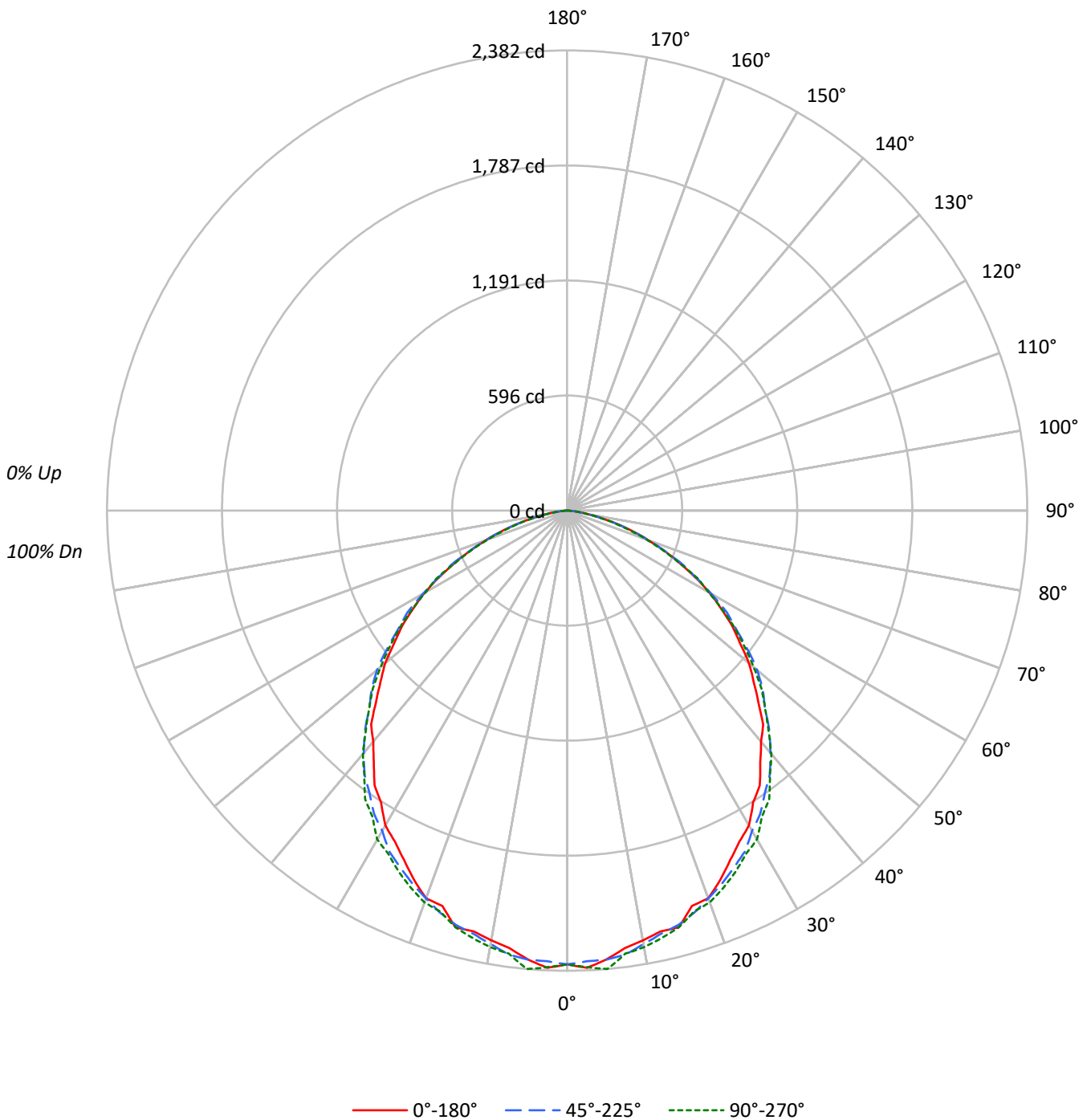
Lumens per Lamp: N/A
Luminaire Lumens: 5920.0 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6321	6321	6321
5°	6300	6302	6435
10°	6172	6226	6270
15°	6221	6187	6222
20°	6116	6116	6181
25°	5928	6058	6124
30°	5847	5949	6108
35°	5709	5858	5990
40°	5487	5751	5776
45°	5321	5510	5518
50°	5146	5378	5275
55°	4903	4998	4963
60°	4585	4631	4547
65°	4088	4192	4059
70°	3508	3519	3422
75°	2778	2772	2665
80°	1861	1810	1739
85°	1013	1003	936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.9	3.7
10°-20°	626.2	10.6
20°-30°	938.2	15.8
30°-40°	1111.9	18.8
40°-50°	1114.0	18.8
50°-60°	945.6	16.0
60°-70°	637.5	10.8
70°-80°	280.1	4.7
80°-90°	45.5	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°	1785.3	30.2
0°-40°	2897.3	48.9
0°-60°	4956.8	83.7
0°-90°	5920.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5920.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2349	2349	2349	2349	2349	
5°	2332	2327	2333	2326	2382	220
15°	2233	2207	2221	2232	2233	622
25°	1996	2007	2040	2067	2063	923
35°	1738	1743	1783	1824	1823	1079
45°	1398	1424	1448	1485	1450	1082
55°	1045	1038	1065	1058	1058	930
65°	642	634	658	633	638	639
75°	267	262	267	248	256	286
85°	33	32	32	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2348.9	2348.9	2348.9	2348.9	2348.9
2.5°	2369.2	2351.3	2334.7	2354.1	2365.9
5°	2332.2	2326.8	2333.1	2326.2	2382.3
7.5°	2284.3	2305.2	2317.4	2309.8	2313.1
10°	2258.8	2251.6	2278.5	2297.3	2294.6
12.5°	2231.5	2242.5	2244.0	2264.3	2266.1
15°	2233.1	2207.3	2220.9	2232.4	2233.4
17.5°	2146.3	2174.2	2183.6	2210.0	2177.2
20°	2135.7	2115.4	2135.7	2162.7	2158.4
22.5°	2070.5	2047.7	2091.4	2115.4	2113.9
25°	1996.5	2007.4	2040.2	2066.9	2062.6
27.5°	1931.6	1944.3	1991.0	2027.7	2004.1
30°	1881.6	1875.2	1914.6	1947.4	1965.6
32.5°	1792.1	1815.1	1861.2	1893.7	1876.4
35°	1737.8	1743.0	1783.3	1824.5	1823.3
37.5°	1642.9	1666.8	1723.5	1735.1	1724.5
40°	1561.9	1585.9	1637.1	1649.5	1644.4
42.5°	1502.1	1506.4	1550.4	1564.6	1541.9
45°	1398.1	1424.2	1447.9	1485.2	1450.0
47.5°	1309.6	1321.7	1372.6	1382.7	1364.2
50°	1229.2	1233.4	1284.7	1272.3	1260.1
52.5°	1128.2	1146.1	1174.9	1172.5	1158.2
55°	1045.1	1038.1	1065.4	1058.1	1057.8
57.5°	945.3	957.5	979.9	968.4	949.9
60°	851.9	852.2	860.4	847.4	844.9
62.5°	747.9	751.5	753.3	737.3	763.4
65°	642.0	633.6	658.4	633.2	637.5
67.5°	544.7	548.9	546.5	530.7	536.8
70°	445.8	451.3	447.3	429.4	434.9
72.5°	355.4	348.8	353.0	330.6	340.9
75°	267.2	261.7	266.6	247.8	256.3
77.5°	182.0	186.2	183.2	173.2	178.9
80°	120.1	116.8	116.8	111.0	112.2
82.5°	70.1	66.7	65.8	64.0	66.7
85°	32.8	31.8	32.5	31.5	30.3
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)