

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: P589492

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589492
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-35-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

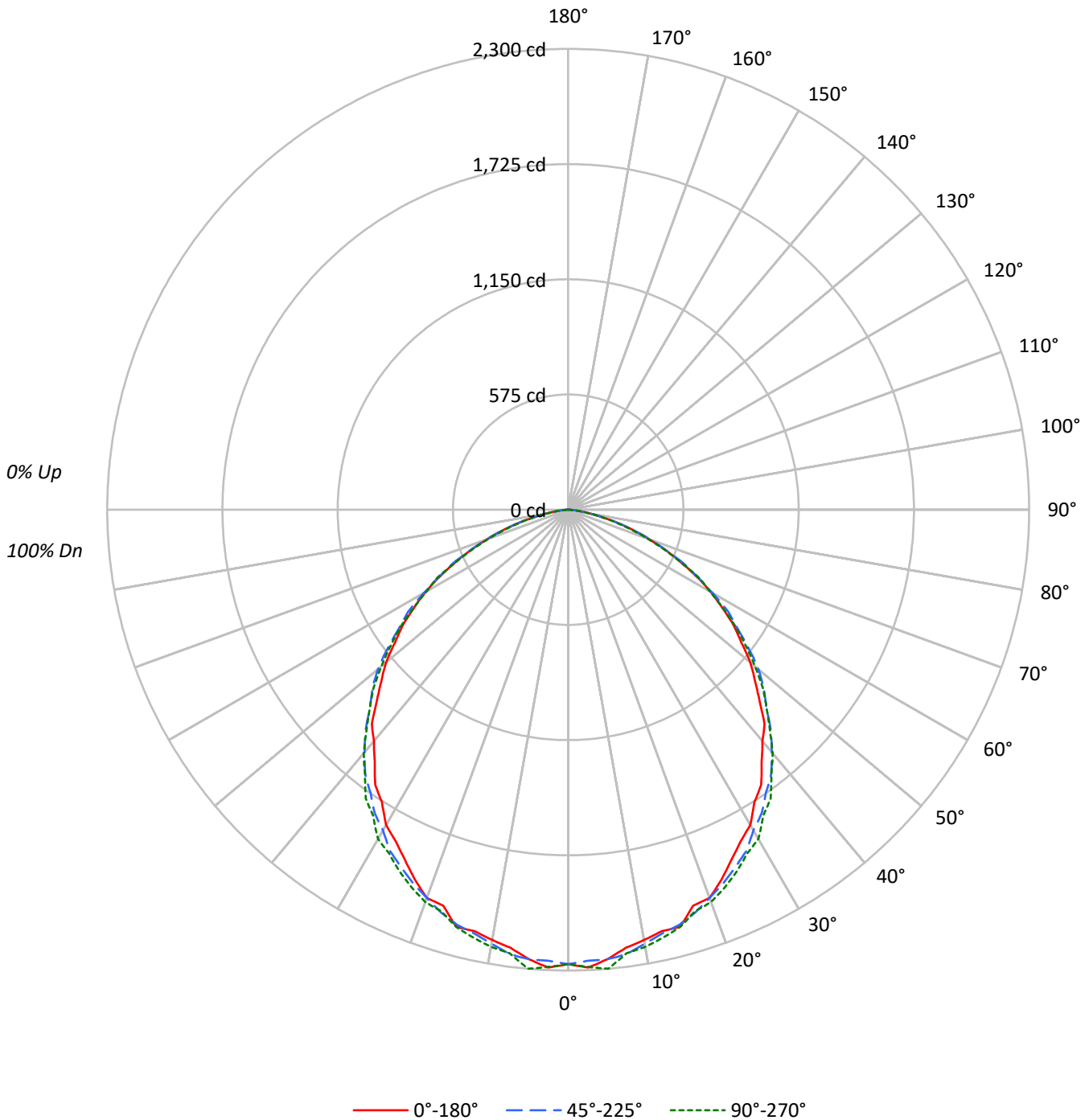
Lumens per Lamp: N/A
Luminaire Lumens: 5715.0 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
Input Voltage (V): NR
Input Current (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°	6102	6102	6102
5°	6082	6084	6212
10°	5958	6010	6053
15°	6006	5973	6006
20°	5904	5904	5967
25°	5723	5848	5912
30°	5644	5743	5896
35°	5511	5655	5782
40°	5297	5552	5576
45°	5136	5319	5327
50°	4968	5192	5093
55°	4733	4825	4791
60°	4426	4470	4390
65°	3947	4047	3918
70°	3386	3397	3303
75°	2681	2676	2572
80°	1796	1746	1678
85°	976	966	905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.3	3.7
10°-20°	604.5	10.6
20°-30°	905.7	15.8
30°-40°	1073.4	18.8
40°-50°	1075.4	18.8
50°-60°	912.8	16.0
60°-70°	615.4	10.8
70°-80°	270.4	4.7
80°-90°	43.9	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°	1723.5	30.2
0°-40°	2796.9	48.9
0°-60°	4785.2	83.7
0°-90°	5715.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5715.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2268	2268	2268	2268	2268	
5°	2252	2246	2252	2246	2300	212
15°	2156	2131	2144	2155	2156	601
25°	1927	1938	1970	1995	1991	891
35°	1678	1683	1722	1761	1760	1042
45°	1350	1375	1398	1434	1400	1044
55°	1009	1002	1028	1022	1021	897
65°	620	612	636	611	615	616
75°	258	253	257	239	247	276
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2267.6	2267.6	2267.6	2267.6	2267.6
2.5°	2287.2	2269.9	2253.8	2272.5	2284.0
5°	2251.5	2246.2	2252.3	2245.6	2299.8
7.5°	2205.2	2225.4	2237.1	2229.8	2233.0
10°	2180.6	2173.6	2199.6	2217.8	2215.2
12.5°	2154.3	2164.8	2166.3	2185.9	2187.6
15°	2155.7	2130.8	2144.0	2155.1	2156.0
17.5°	2072.0	2098.9	2108.0	2133.5	2101.9
20°	2061.7	2042.1	2061.7	2087.8	2083.7
22.5°	1998.8	1976.8	2019.0	2042.1	2040.7
25°	1927.4	1937.9	1969.5	1995.3	1991.2
27.5°	1864.7	1877.0	1922.1	1957.5	1934.7
30°	1816.4	1810.2	1848.3	1879.9	1897.5
32.5°	1730.0	1752.3	1796.8	1828.1	1811.4
35°	1677.6	1682.6	1721.5	1761.4	1760.2
37.5°	1586.0	1609.1	1663.9	1675.0	1664.7
40°	1507.8	1530.9	1580.4	1592.4	1587.4
42.5°	1450.1	1454.2	1496.7	1510.4	1488.5
45°	1349.7	1374.9	1397.7	1433.7	1399.8
47.5°	1264.2	1275.9	1325.1	1334.8	1316.9
50°	1186.6	1190.7	1240.2	1228.2	1216.5
52.5°	1089.1	1106.4	1134.2	1131.9	1118.1
55°	1008.9	1002.2	1028.5	1021.5	1021.2
57.5°	912.6	924.3	946.0	934.8	917.0
60°	822.4	822.7	830.6	818.0	815.7
62.5°	722.0	725.5	727.3	711.7	736.9
65°	619.8	611.6	635.6	611.3	615.4
67.5°	525.8	529.9	527.6	512.4	518.2
70°	430.4	435.7	431.8	414.6	419.8
72.5°	343.1	336.7	340.8	319.1	329.1
75°	257.9	252.7	257.4	239.2	247.4
77.5°	175.7	179.8	176.8	167.2	172.7
80°	115.9	112.7	112.7	107.2	108.3
82.5°	67.6	64.4	63.5	61.8	64.4
85°	31.6	30.7	31.3	30.4	29.3
87.5°	11.4	11.7	11.7	11.1	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)