

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: P589475

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589475
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-81-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

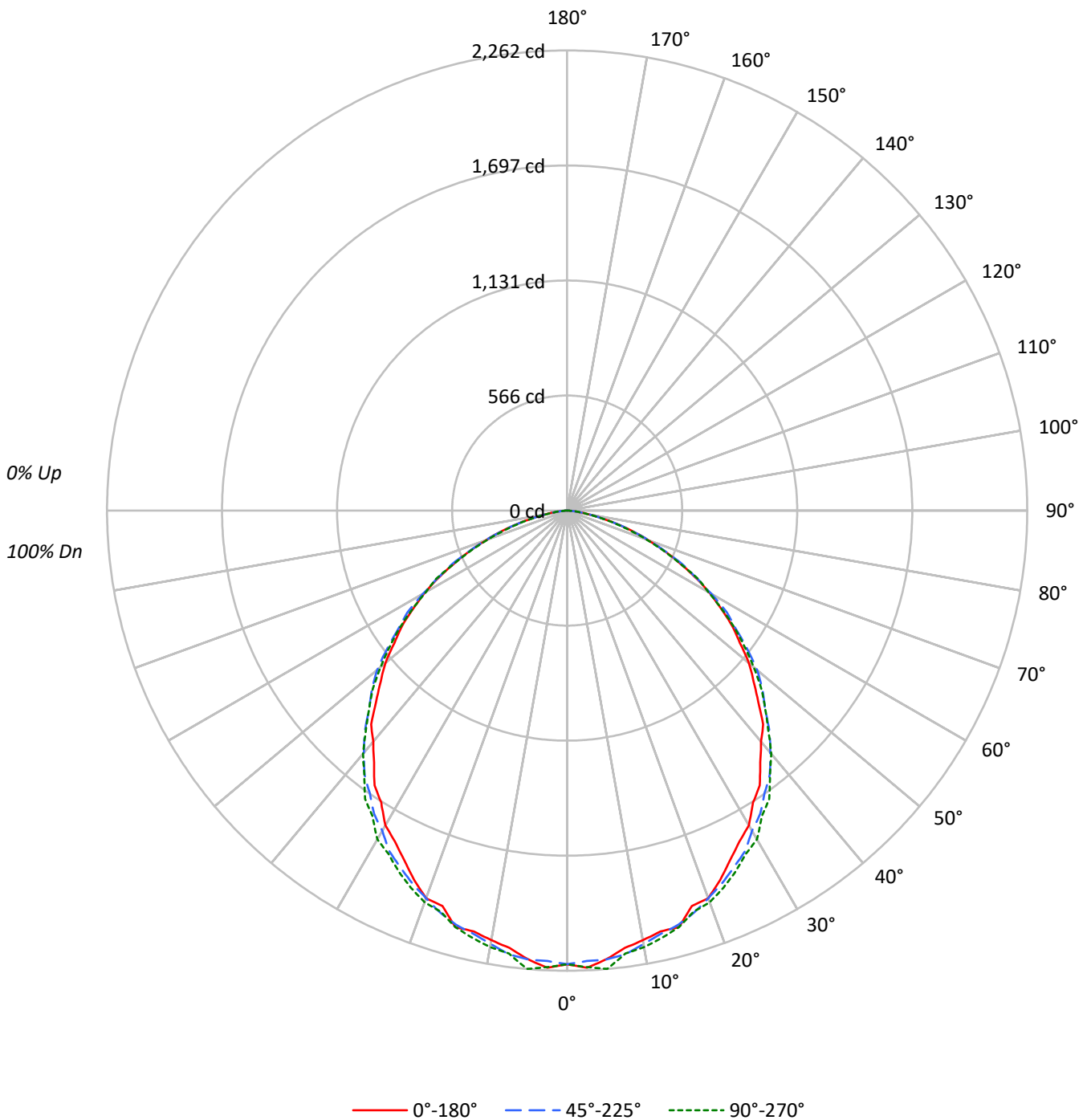
Lumens per Lamp: N/A
Luminaire Lumens: 5620.0 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	6001	6001	6001
5°	5981	5983	6109
10°	5860	5911	5952
15°	5906	5874	5907
20°	5806	5806	5868
25°	5627	5751	5814
30°	5550	5648	5798
35°	5419	5561	5686
40°	5208	5459	5484
45°	5051	5231	5238
50°	4885	5106	5008
55°	4655	4745	4711
60°	4352	4396	4317
65°	3881	3980	3854
70°	3330	3341	3249
75°	2637	2632	2530
80°	1767	1717	1650
85°	960	951	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.8	3.7
10°-20°	594.5	10.6
20°-30°	890.6	15.8
30°-40°	1055.6	18.8
40°-50°	1057.5	18.8
50°-60°	897.7	16.0
60°-70°	605.2	10.8
70°-80°	265.9	4.7
80°-90°	43.2	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°	1694.9	30.2
0°-40°	2750.4	48.9
0°-60°	4705.6	83.7
0°-90°	5620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2230	2230	2230	2230	2230	
5°	2214	2209	2215	2208	2262	209
15°	2120	2095	2108	2119	2120	591
25°	1895	1906	1937	1962	1958	876
35°	1650	1655	1693	1732	1731	1024
45°	1327	1352	1374	1410	1376	1027
55°	992	986	1011	1004	1004	883
65°	610	601	625	601	605	606
75°	254	248	253	235	243	272
85°	31	30	31	30	29	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2229.9	2229.9	2229.9	2229.9	2229.9
2.5°	2249.2	2232.2	2216.3	2234.8	2246.0
5°	2214.0	2208.9	2214.9	2208.3	2261.5
7.5°	2168.5	2188.4	2199.9	2192.7	2195.9
10°	2144.4	2137.5	2163.1	2180.9	2178.3
12.5°	2118.5	2128.8	2130.3	2149.5	2151.3
15°	2119.9	2095.4	2108.4	2119.3	2120.2
17.5°	2037.5	2064.0	2073.0	2098.0	2066.9
20°	2027.5	2008.2	2027.5	2053.1	2049.1
22.5°	1965.6	1944.0	1985.4	2008.2	2006.7
25°	1895.3	1905.7	1936.8	1962.1	1958.1
27.5°	1833.7	1845.8	1890.1	1925.0	1902.5
30°	1786.2	1780.2	1817.6	1848.7	1866.0
32.5°	1701.3	1723.1	1766.9	1797.7	1781.3
35°	1649.7	1654.6	1692.9	1732.1	1730.9
37.5°	1559.6	1582.4	1636.2	1647.1	1637.1
40°	1482.7	1505.5	1554.1	1566.0	1561.1
42.5°	1426.0	1430.1	1471.8	1485.3	1463.7
45°	1327.3	1352.0	1374.5	1409.9	1376.5
47.5°	1243.2	1254.7	1303.1	1312.6	1295.0
50°	1166.9	1170.9	1219.6	1207.8	1196.3
52.5°	1071.0	1088.0	1115.4	1113.1	1099.5
55°	992.1	985.5	1011.4	1004.5	1004.2
57.5°	897.4	908.9	930.2	919.3	901.7
60°	808.7	809.0	816.8	804.4	802.1
62.5°	710.0	713.4	715.2	699.9	724.7
65°	609.5	601.4	625.1	601.2	605.2
67.5°	517.1	521.1	518.8	503.8	509.6
70°	423.2	428.4	424.7	407.7	412.9
72.5°	337.4	331.1	335.1	313.8	323.6
75°	253.6	248.5	253.1	235.2	243.3
77.5°	172.7	176.8	173.9	164.4	169.9
80°	114.0	110.8	110.8	105.4	106.5
82.5°	66.5	63.3	62.5	60.7	63.3
85°	31.1	30.2	30.8	29.9	28.8
87.5°	11.2	11.5	11.5	10.9	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)