

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: P589465

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589465
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-80-88-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

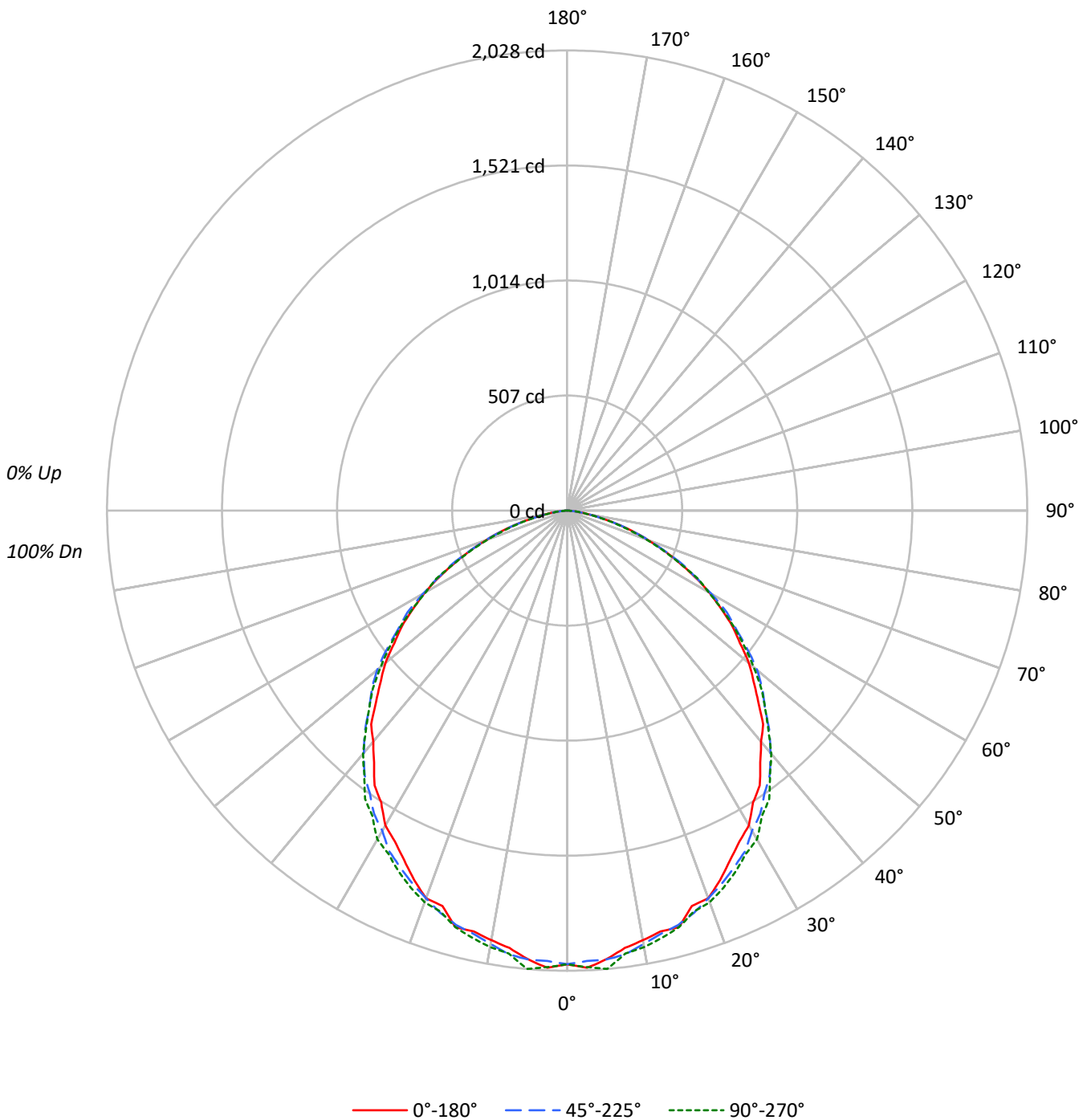
Lumens per Lamp: N/A
Luminaire Lumens: 5039.0 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5380	5380	5380
5°	5362	5364	5477
10°	5254	5300	5337
15°	5295	5266	5296
20°	5206	5206	5261
25°	5046	5156	5213
30°	4976	5064	5199
35°	4859	4986	5098
40°	4670	4895	4917
45°	4529	4690	4697
50°	4380	4578	4490
55°	4174	4255	4224
60°	3902	3942	3871
65°	3480	3568	3455
70°	2986	2996	2913
75°	2364	2359	2268
80°	1584	1540	1480
85°	861	852	797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.1	3.7
10°-20°	533.0	10.6
20°-30°	798.6	15.8
30°-40°	946.5	18.8
40°-50°	948.2	18.8
50°-60°	804.9	16.0
60°-70°	542.6	10.8
70°-80°	238.4	4.7
80°-90°	38.7	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°	1519.6	30.2
0°-40°	2466.1	48.9
0°-60°	4219.2	83.7
0°-90°	5039.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5039.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1999	1999	1999	1999	1999	
5°	1985	1980	1986	1980	2028	187
15°	1901	1879	1890	1900	1901	530
25°	1699	1709	1737	1759	1756	786
35°	1479	1484	1518	1553	1552	918
45°	1190	1212	1232	1264	1234	921
55°	890	884	907	901	900	791
65°	546	539	560	539	543	544
75°	227	223	227	211	218	244
85°	28	27	28	27	26	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1999.3	1999.3	1999.3	1999.3	1999.3
2.5°	2016.6	2001.4	1987.2	2003.7	2013.8
5°	1985.1	1980.5	1985.9	1980.0	2027.7
7.5°	1944.4	1962.2	1972.5	1966.0	1968.9
10°	1922.7	1916.5	1939.5	1955.5	1953.1
12.5°	1899.4	1908.7	1910.0	1927.3	1928.9
15°	1900.7	1878.8	1890.4	1900.2	1901.0
17.5°	1826.9	1850.7	1858.7	1881.1	1853.2
20°	1817.9	1800.6	1817.9	1840.8	1837.2
22.5°	1762.4	1743.0	1780.2	1800.6	1799.3
25°	1699.4	1708.7	1736.6	1759.3	1755.7
27.5°	1644.1	1655.0	1694.7	1726.0	1705.8
30°	1601.5	1596.1	1629.7	1657.6	1673.1
32.5°	1525.4	1545.0	1584.2	1611.9	1597.2
35°	1479.2	1483.6	1517.9	1553.0	1552.0
37.5°	1398.4	1418.8	1467.0	1476.9	1467.8
40°	1329.5	1349.9	1393.5	1404.1	1399.7
42.5°	1278.6	1282.2	1319.6	1331.8	1312.4
45°	1190.1	1212.3	1232.4	1264.1	1234.2
47.5°	1114.7	1125.0	1168.4	1176.9	1161.1
50°	1046.3	1049.9	1093.5	1082.9	1072.6
52.5°	960.3	975.5	1000.1	998.0	985.9
55°	889.6	883.6	906.9	900.7	900.4
57.5°	804.6	815.0	834.1	824.3	808.5
60°	725.1	725.4	732.4	721.3	719.2
62.5°	636.6	639.7	641.2	627.6	649.8
65°	546.5	539.3	560.4	539.0	542.6
67.5°	463.6	467.2	465.2	451.8	456.9
70°	379.5	384.1	380.8	365.5	370.2
72.5°	302.5	296.9	300.5	281.4	290.2
75°	227.4	222.8	226.9	210.9	218.1
77.5°	154.9	158.5	155.9	147.4	152.3
80°	102.2	99.4	99.4	94.5	95.5
82.5°	59.6	56.8	56.0	54.5	56.8
85°	27.9	27.1	27.6	26.8	25.8
87.5°	10.1	10.3	10.3	9.8	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)