

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: P589537

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-81-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589537
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-50-UNV-81-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

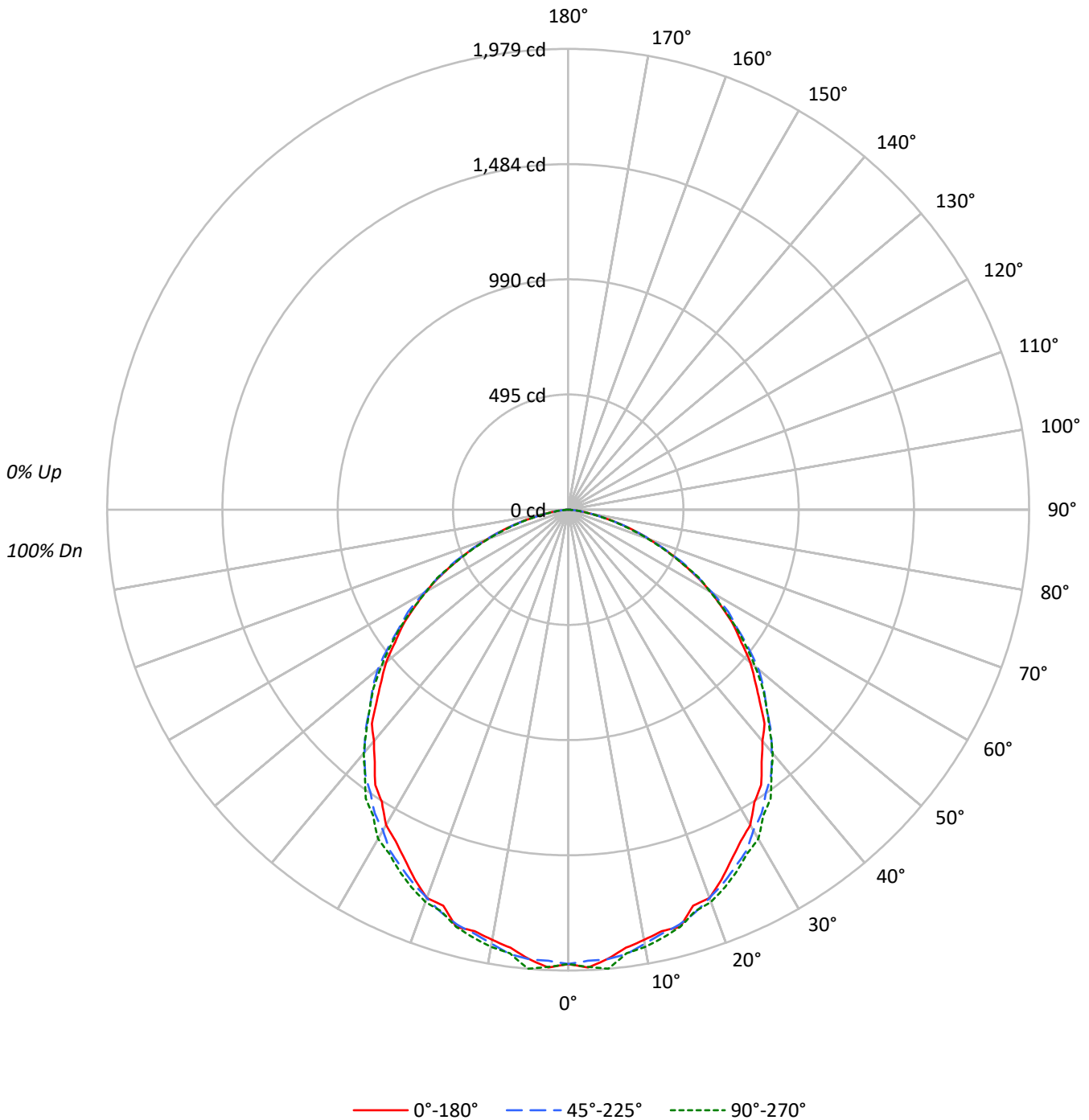
Lumens per Lamp: N/A
Luminaire Lumens: 4917.0 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
Input Voltage (V): NR
Input Current (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°	5250	5250	5250
5°	5233	5234	5345
10°	5126	5171	5208
15°	5167	5139	5168
20°	5080	5080	5134
25°	4923	5031	5087
30°	4856	4941	5073
35°	4742	4866	4975
40°	4557	4776	4798
45°	4419	4577	4583
50°	4274	4467	4382
55°	4072	4152	4122
60°	3808	3846	3777
65°	3396	3482	3372
70°	2913	2923	2842
75°	2307	2302	2214
80°	1547	1503	1444
85°	840	834	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.5	3.7
10°-20°	520.1	10.6
20°-30°	779.2	15.8
30°-40°	923.5	18.8
40°-50°	925.2	18.8
50°-60°	785.4	16.0
60°-70°	529.5	10.8
70°-80°	232.7	4.7
80°-90°	37.8	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°	1482.8	30.2
0°-40°	2406.4	48.9
0°-60°	4117.0	83.7
0°-90°	4917.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4917.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1951	1951	1951	1951	1951	
5°	1937	1933	1938	1932	1979	183
15°	1855	1833	1845	1854	1855	517
25°	1658	1667	1694	1717	1713	767
35°	1443	1448	1481	1515	1514	896
45°	1161	1183	1203	1234	1204	898
55°	868	862	885	879	879	772
65°	533	526	547	526	530	530
75°	222	217	221	206	213	238
85°	27	26	27	26	25	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1950.9	1950.9	1950.9	1950.9	1950.9
2.5°	1967.8	1953.0	1939.1	1955.2	1965.0
5°	1937.1	1932.6	1937.8	1932.0	1978.7
7.5°	1897.3	1914.7	1924.7	1918.4	1921.2
10°	1876.1	1870.1	1892.5	1908.1	1905.9
12.5°	1853.5	1862.5	1863.8	1880.7	1882.2
15°	1854.7	1833.3	1844.6	1854.2	1855.0
17.5°	1782.7	1805.8	1813.7	1835.6	1808.4
20°	1773.9	1757.0	1773.9	1796.3	1792.8
22.5°	1719.7	1700.8	1737.1	1757.0	1755.7
25°	1658.2	1667.3	1694.5	1716.7	1713.2
27.5°	1604.3	1614.9	1653.7	1684.2	1664.5
30°	1562.8	1557.5	1590.2	1617.4	1632.5
32.5°	1488.5	1507.6	1545.9	1572.8	1558.5
35°	1443.4	1447.7	1481.2	1515.4	1514.4
37.5°	1364.5	1384.4	1431.5	1441.1	1432.3
40°	1297.3	1317.2	1359.7	1370.1	1365.8
42.5°	1247.6	1251.2	1287.7	1299.5	1280.6
45°	1161.2	1182.9	1202.6	1233.5	1204.3
47.5°	1087.7	1097.8	1140.1	1148.4	1133.0
50°	1020.9	1024.5	1067.0	1056.7	1046.6
52.5°	937.1	951.9	975.8	973.8	962.0
55°	868.0	862.2	884.9	878.9	878.6
57.5°	785.2	795.2	813.9	804.3	788.9
60°	707.6	707.8	714.6	703.8	701.8
62.5°	621.2	624.2	625.7	612.4	634.0
65°	533.3	526.2	546.9	526.0	529.5
67.5°	452.4	455.9	453.9	440.8	445.9
70°	370.3	374.8	371.5	356.7	361.2
72.5°	295.2	289.7	293.2	274.6	283.1
75°	221.9	217.4	221.4	205.8	212.9
77.5°	151.1	154.7	152.1	143.8	148.6
80°	99.8	97.0	97.0	92.2	93.2
82.5°	58.2	55.4	54.7	53.2	55.4
85°	27.2	26.4	27.0	26.2	25.2
87.5°	9.8	10.1	10.1	9.6	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)