

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: P589053

Luminaire Tested: **FMR-24-2-LD4-2HI-50-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589053
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-LD4-2HI-50-UNV-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

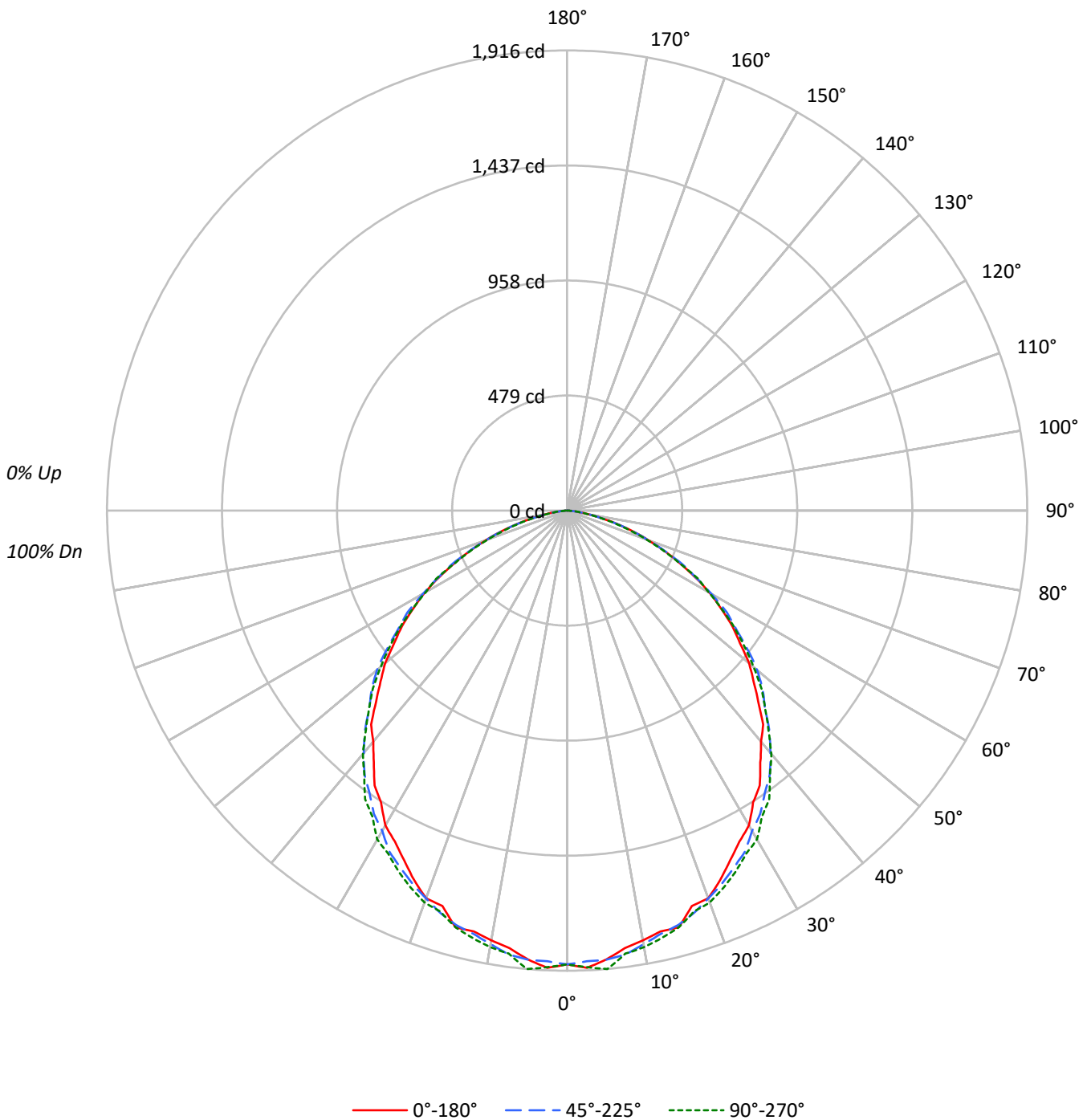
Lumens per Lamp: N/A
Luminaire Lumens: 4762.0 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	5084	5084	5084
5°	5068	5070	5176
10°	4965	5008	5044
15°	5004	4977	5005
20°	4920	4920	4972
25°	4768	4873	4926
30°	4703	4786	4913
35°	4592	4712	4818
40°	4414	4626	4646
45°	4280	4432	4439
50°	4140	4326	4243
55°	3944	4021	3992
60°	3688	3725	3658
65°	3289	3372	3265
70°	2821	2831	2752
75°	2234	2229	2143
80°	1497	1455	1399
85°	812	806	753



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.7	3.7
10°-20°	503.7	10.6
20°-30°	754.7	15.8
30°-40°	894.4	18.8
40°-50°	896.1	18.8
50°-60°	760.6	16.0
60°-70°	512.8	10.8
70°-80°	225.3	4.7
80°-90°	36.6	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°	1436.1	30.2
0°-40°	2330.5	48.9
0°-60°	3987.2	83.7
0°-90°	4762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1889	1889	1889	1889	1889	
5°	1876	1872	1877	1871	1916	177
15°	1796	1776	1786	1796	1796	500
25°	1606	1615	1641	1663	1659	742
35°	1398	1402	1434	1468	1467	868
45°	1125	1146	1165	1195	1166	870
55°	841	835	857	851	851	748
65°	516	510	530	509	513	514
75°	215	210	214	199	206	230
85°	26	26	26	25	24	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1889.4	1889.4	1889.4	1889.4	1889.4
2.5°	1905.8	1891.4	1878.0	1893.6	1903.1
5°	1876.0	1871.6	1876.8	1871.1	1916.3
7.5°	1837.5	1854.3	1864.1	1858.0	1860.7
10°	1817.0	1811.1	1832.8	1848.0	1845.8
12.5°	1795.0	1803.8	1805.0	1821.4	1822.8
15°	1796.3	1775.5	1786.5	1795.8	1796.5
17.5°	1726.5	1748.9	1756.5	1777.7	1751.4
20°	1717.9	1701.6	1717.9	1739.7	1736.2
22.5°	1665.5	1647.2	1682.3	1701.6	1700.4
25°	1606.0	1614.7	1641.1	1662.6	1659.1
27.5°	1553.8	1564.0	1601.6	1631.1	1612.1
30°	1513.5	1508.4	1540.1	1566.4	1581.1
32.5°	1441.5	1460.1	1497.2	1523.3	1509.4
35°	1397.9	1402.0	1434.5	1467.6	1466.7
37.5°	1321.5	1340.8	1386.4	1395.7	1387.1
40°	1256.4	1275.6	1316.9	1326.9	1322.7
42.5°	1208.3	1211.7	1247.1	1258.6	1240.3
45°	1124.6	1145.6	1164.6	1194.7	1166.4
47.5°	1053.4	1063.2	1104.1	1112.2	1097.3
50°	988.8	992.2	1033.4	1023.4	1013.6
52.5°	907.5	921.9	945.1	943.1	931.7
55°	840.7	835.1	857.0	851.2	850.9
57.5°	760.4	770.2	788.2	779.0	764.1
60°	685.3	685.5	692.1	681.6	679.7
62.5°	601.6	604.5	606.0	593.1	614.0
65°	516.5	509.6	529.6	509.4	512.8
67.5°	438.1	441.6	439.6	426.9	431.8
70°	358.6	363.0	359.8	345.4	349.8
72.5°	285.9	280.5	284.0	265.9	274.2
75°	214.9	210.5	214.4	199.3	206.1
77.5°	146.4	149.8	147.3	139.3	143.9
80°	96.6	93.9	93.9	89.3	90.3
82.5°	56.4	53.7	52.9	51.5	53.7
85°	26.3	25.6	26.1	25.4	24.4
87.5°	9.5	9.8	9.8	9.3	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)