

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: P589052

Luminaire Tested: **FMR-24-2-LD4-2HI-50-UNV-80-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589052
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-80-97-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

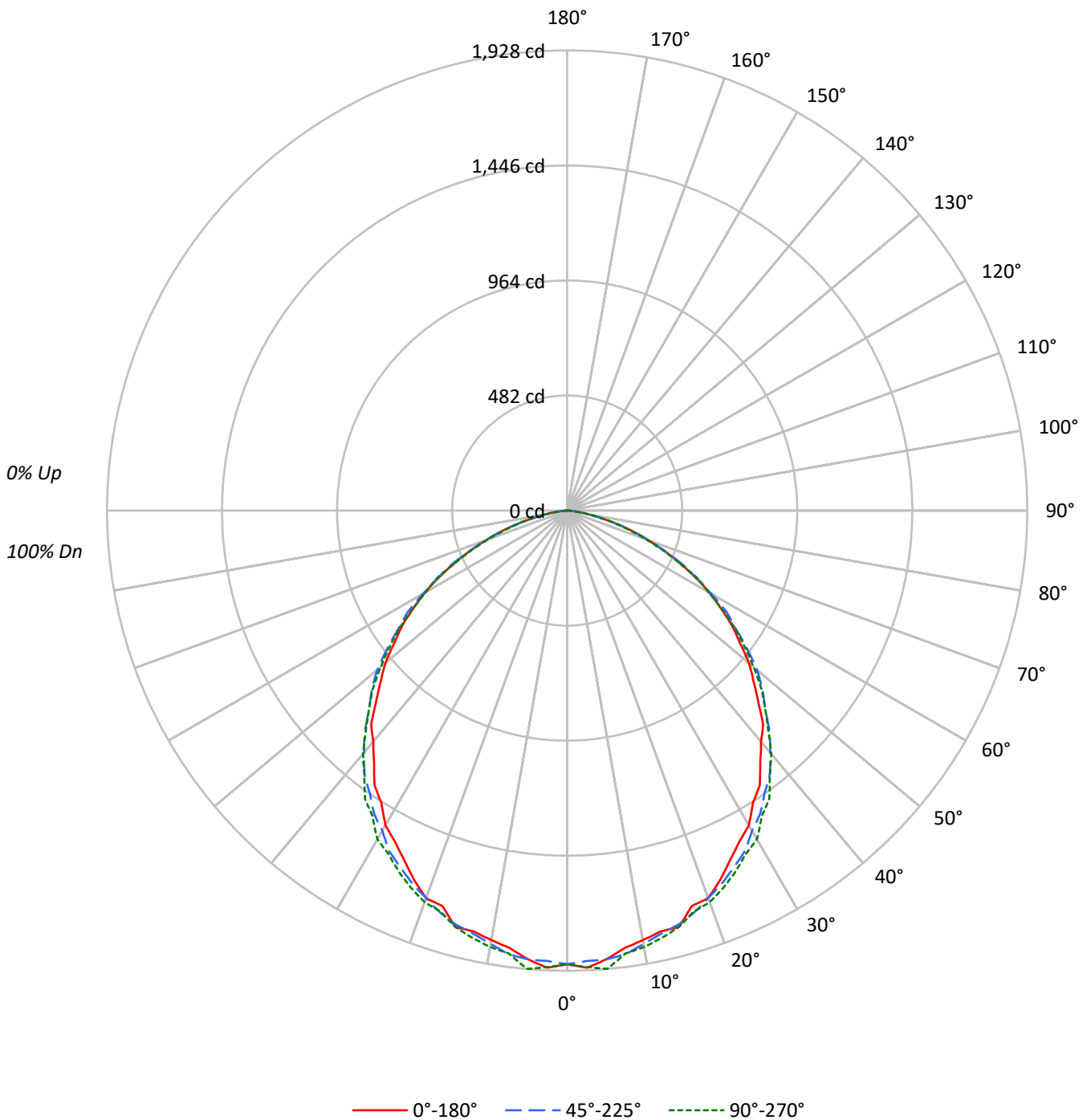
Lumens per Lamp: N/A
Luminaire Lumens: 4790.0 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	5114	5114	5114
5°	5098	5099	5207
10°	4994	5038	5073
15°	5034	5006	5034
20°	4948	4948	5001
25°	4796	4901	4955
30°	4731	4814	4942
35°	4619	4740	4846
40°	4440	4653	4674
45°	4305	4458	4465
50°	4164	4352	4268
55°	3967	4045	4016
60°	3710	3747	3680
65°	3308	3392	3284
70°	2838	2848	2769
75°	2248	2243	2156
80°	1506	1464	1407
85°	818	812	756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.8	3.7
10°-20°	506.7	10.6
20°-30°	759.1	15.8
30°-40°	899.7	18.8
40°-50°	901.4	18.8
50°-60°	765.1	16.0
60°-70°	515.8	10.8
70°-80°	226.7	4.7
80°-90°	36.8	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°	1444.5	30.2
0°-40°	2344.2	48.9
0°-60°	4010.7	83.7
0°-90°	4790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1901	1901	1901	1901	1901	
5°	1887	1883	1888	1882	1928	178
15°	1807	1786	1797	1806	1807	503
25°	1615	1624	1651	1672	1669	747
35°	1406	1410	1443	1476	1475	873
45°	1131	1152	1172	1202	1173	875
55°	846	840	862	856	856	752
65°	520	513	533	512	516	517
75°	216	212	216	200	207	232
85°	26	26	26	26	24	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1900.6	1900.6	1900.6	1900.6	1900.6
2.5°	1917.0	1902.5	1889.0	1904.7	1914.3
5°	1887.1	1882.6	1887.8	1882.1	1927.5
7.5°	1848.3	1865.2	1875.0	1868.9	1871.6
10°	1827.7	1821.8	1843.6	1858.8	1856.6
12.5°	1805.6	1814.4	1815.6	1832.1	1833.6
15°	1806.8	1786.0	1797.0	1806.3	1807.1
17.5°	1736.6	1759.2	1766.8	1788.2	1761.7
20°	1728.0	1711.6	1728.0	1749.9	1746.4
22.5°	1675.3	1656.9	1692.2	1711.6	1710.4
25°	1615.4	1624.2	1650.7	1672.3	1668.9
27.5°	1562.9	1573.2	1611.0	1640.7	1621.5
30°	1522.4	1517.3	1549.2	1575.7	1590.4
32.5°	1450.0	1468.7	1506.0	1532.2	1518.2
35°	1406.1	1410.3	1442.9	1476.3	1475.3
37.5°	1329.3	1348.7	1394.6	1403.9	1395.3
40°	1263.8	1283.1	1324.6	1334.7	1330.5
42.5°	1215.4	1218.9	1254.4	1266.0	1247.6
45°	1131.3	1152.4	1171.5	1201.7	1173.2
47.5°	1059.6	1069.4	1110.6	1118.7	1103.8
50°	994.6	998.0	1039.5	1029.4	1019.6
52.5°	912.9	927.3	950.6	948.7	937.1
55°	845.6	840.0	862.1	856.2	855.9
57.5°	764.9	774.7	792.9	783.5	768.6
60°	689.3	689.5	696.2	685.6	683.7
62.5°	605.1	608.1	609.6	596.5	617.6
65°	519.5	512.6	532.7	512.4	515.8
67.5°	440.7	444.2	442.2	429.4	434.3
70°	360.7	365.1	362.0	347.5	351.9
72.5°	287.6	282.2	285.6	267.5	275.8
75°	216.2	211.8	215.7	200.5	207.4
77.5°	147.2	150.7	148.2	140.1	144.8
80°	97.2	94.5	94.5	89.8	90.8
82.5°	56.7	54.0	53.2	51.8	54.0
85°	26.5	25.8	26.3	25.5	24.5
87.5°	9.6	9.8	9.8	9.3	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)