

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: P589011

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589011
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-35-UNV-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

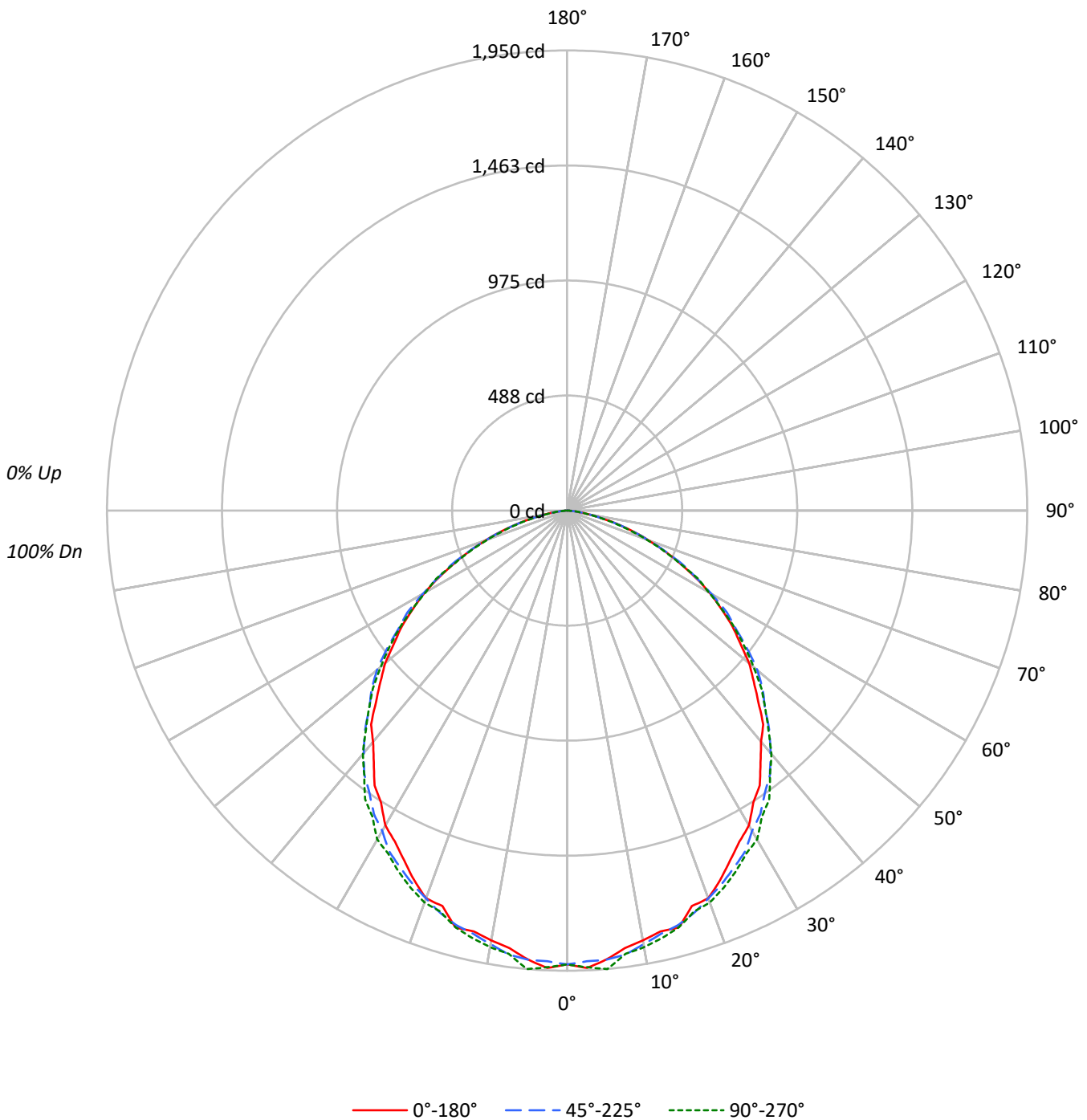
Lumens per Lamp: N/A
Luminaire Lumens: 4847.0 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P589011

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-93-96-EDD

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	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					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°	5175	5175	5175
5°	5158	5160	5269
10°	5053	5098	5134
15°	5093	5066	5094
20°	5007	5007	5061
25°	4853	4960	5014
30°	4787	4871	5001
35°	4674	4797	4904
40°	4492	4709	4729
45°	4356	4511	4518
50°	4213	4403	4319
55°	4015	4092	4063
60°	3754	3792	3723
65°	3347	3433	3323
70°	2872	2882	2802
75°	2275	2270	2181
80°	1523	1481	1424
85°	827	821	766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.9	3.7
10°-20°	512.7	10.6
20°-30°	768.1	15.8
30°-40°	910.4	18.8
40°-50°	912.1	18.8
50°-60°	774.2	16.0
60°-70°	522.0	10.8
70°-80°	229.4	4.7
80°-90°	37.3	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°	1461.7	30.2
0°-40°	2372.1	48.9
0°-60°	4058.4	83.7
0°-90°	4847.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4847.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1923	1923	1923	1923	1923	
5°	1910	1905	1910	1904	1950	180
15°	1828	1807	1818	1828	1829	509
25°	1635	1644	1670	1692	1689	756
35°	1423	1427	1460	1494	1493	883
45°	1145	1166	1185	1216	1187	886
55°	856	850	872	866	866	761
65°	526	519	539	518	522	523
75°	219	214	218	203	210	234
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°	1923.2	1923.2	1923.2	1923.2	1923.2
2.5°	1939.8	1925.2	1911.5	1927.4	1937.1
5°	1909.5	1905.0	1910.3	1904.5	1950.5
7.5°	1870.3	1887.4	1897.3	1891.1	1893.9
10°	1849.4	1843.5	1865.6	1881.0	1878.7
12.5°	1827.1	1836.0	1837.3	1853.9	1855.4
15°	1828.3	1807.2	1818.4	1827.8	1828.6
17.5°	1757.3	1780.1	1787.8	1809.4	1782.6
20°	1748.6	1732.0	1748.6	1770.7	1767.2
22.5°	1695.2	1676.6	1712.4	1732.0	1730.7
25°	1634.6	1643.6	1670.4	1692.2	1688.8
27.5°	1581.5	1591.9	1630.2	1660.2	1640.8
30°	1540.5	1535.3	1567.6	1594.4	1609.3
32.5°	1467.3	1486.1	1523.9	1550.5	1536.3
35°	1422.8	1427.0	1460.1	1493.8	1492.8
37.5°	1345.1	1364.7	1411.2	1420.6	1411.9
40°	1278.8	1298.4	1340.4	1350.6	1346.3
42.5°	1229.9	1233.4	1269.4	1281.0	1262.4
45°	1144.7	1166.1	1185.4	1216.0	1187.2
47.5°	1072.2	1082.1	1123.9	1132.0	1116.9
50°	1006.4	1009.9	1051.8	1041.7	1031.7
52.5°	923.7	938.4	962.0	960.0	948.3
55°	855.7	850.0	872.3	866.4	866.1
57.5°	774.0	783.9	802.3	792.9	777.7
60°	697.5	697.8	704.5	693.8	691.8
62.5°	612.3	615.3	616.8	603.6	625.0
65°	525.7	518.7	539.1	518.5	521.9
67.5°	446.0	449.4	447.5	434.5	439.5
70°	365.0	369.5	366.3	351.6	356.1
72.5°	291.0	285.6	289.0	270.7	279.1
75°	218.8	214.3	218.3	202.9	209.8
77.5°	149.0	152.5	150.0	141.8	146.5
80°	98.3	95.6	95.6	90.9	91.9
82.5°	57.4	54.6	53.9	52.4	54.6
85°	26.8	26.1	26.6	25.8	24.8
87.5°	9.7	9.9	9.9	9.4	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)