

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: P589009

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589009
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-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

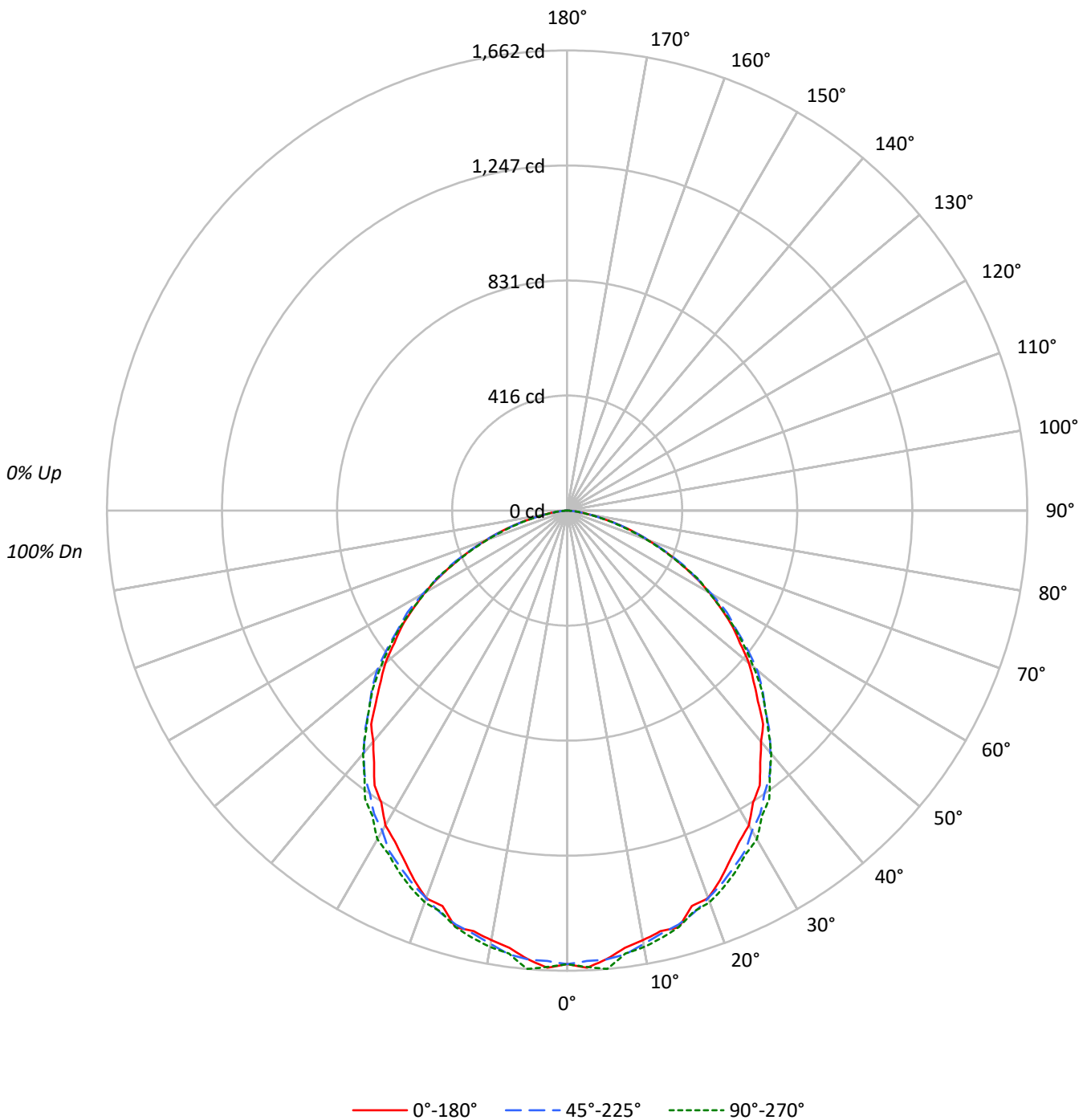
Lumens per Lamp: N/A
Luminaire Lumens: 4129.0 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589009

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-93-88-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	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°	4409	4409	4409
5°	4394	4396	4488
10°	4305	4342	4373
15°	4339	4315	4340
20°	4266	4266	4311
25°	4135	4225	4271
30°	4078	4149	4260
35°	3982	4086	4178
40°	3827	4011	4029
45°	3711	3843	3849
50°	3589	3751	3679
55°	3420	3486	3461
60°	3198	3230	3172
65°	2851	2924	2831
70°	2446	2455	2386
75°	1938	1933	1858
80°	1299	1261	1213
85°	704	698	655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.1	3.7
10°-20°	436.8	10.6
20°-30°	654.3	15.8
30°-40°	775.5	18.8
40°-50°	777.0	18.8
50°-60°	659.5	16.0
60°-70°	444.6	10.8
70°-80°	195.4	4.7
80°-90°	31.7	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°	1245.2	30.2
0°-40°	2020.7	48.9
0°-60°	3457.2	83.7
0°-90°	4129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4129.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1638	1638	1638	1638	1638	
5°	1627	1623	1627	1622	1662	153
15°	1558	1540	1549	1557	1558	434
25°	1392	1400	1423	1442	1439	644
35°	1212	1216	1244	1273	1272	753
45°	975	993	1010	1036	1011	754
55°	729	724	743	738	738	648
65°	448	442	459	442	445	445
75°	186	182	186	173	179	200
85°	23	22	23	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1638.3	1638.3	1638.3	1638.3	1638.3
2.5°	1652.5	1640.0	1628.3	1641.9	1650.1
5°	1626.6	1622.8	1627.3	1622.4	1661.6
7.5°	1593.2	1607.8	1616.3	1611.0	1613.3
10°	1575.5	1570.4	1589.2	1602.3	1600.4
12.5°	1556.4	1564.0	1565.1	1579.3	1580.5
15°	1557.5	1539.5	1549.0	1557.1	1557.7
17.5°	1497.0	1516.4	1523.0	1541.4	1518.6
20°	1489.6	1475.4	1489.6	1508.4	1505.4
22.5°	1444.1	1428.2	1458.7	1475.4	1474.3
25°	1392.5	1400.1	1422.9	1441.6	1438.6
27.5°	1347.2	1356.1	1388.7	1414.3	1397.8
30°	1312.3	1307.9	1335.4	1358.2	1370.9
32.5°	1249.9	1266.0	1298.1	1320.8	1308.7
35°	1212.1	1215.7	1243.8	1272.6	1271.7
37.5°	1145.8	1162.6	1202.1	1210.2	1202.7
40°	1089.4	1106.1	1141.8	1150.5	1146.9
42.5°	1047.7	1050.7	1081.3	1091.3	1075.4
45°	975.1	993.3	1009.8	1035.9	1011.3
47.5°	913.4	921.8	957.4	964.4	951.5
50°	857.3	860.3	896.0	887.4	878.9
52.5°	786.9	799.4	819.5	817.8	807.8
55°	728.9	724.1	743.1	738.0	737.8
57.5°	659.3	667.8	683.4	675.4	662.5
60°	594.2	594.4	600.1	591.0	589.3
62.5°	521.6	524.2	525.4	514.2	532.4
65°	447.8	441.9	459.2	441.7	444.6
67.5°	379.9	382.9	381.2	370.2	374.4
70°	310.9	314.8	312.0	299.5	303.3
72.5°	247.9	243.3	246.2	230.6	237.8
75°	186.4	182.5	185.9	172.8	178.7
77.5°	126.9	129.9	127.8	120.8	124.8
80°	83.8	81.4	81.4	77.4	78.3
82.5°	48.9	46.5	45.9	44.6	46.5
85°	22.8	22.2	22.6	22.0	21.2
87.5°	8.2	8.5	8.5	8.0	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)