

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: P589210

Luminaire Tested: **FMR-24-2-LD4-2STD-40-UNV-80-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589210
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-LD4-2STD-40-UNV-80-94-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

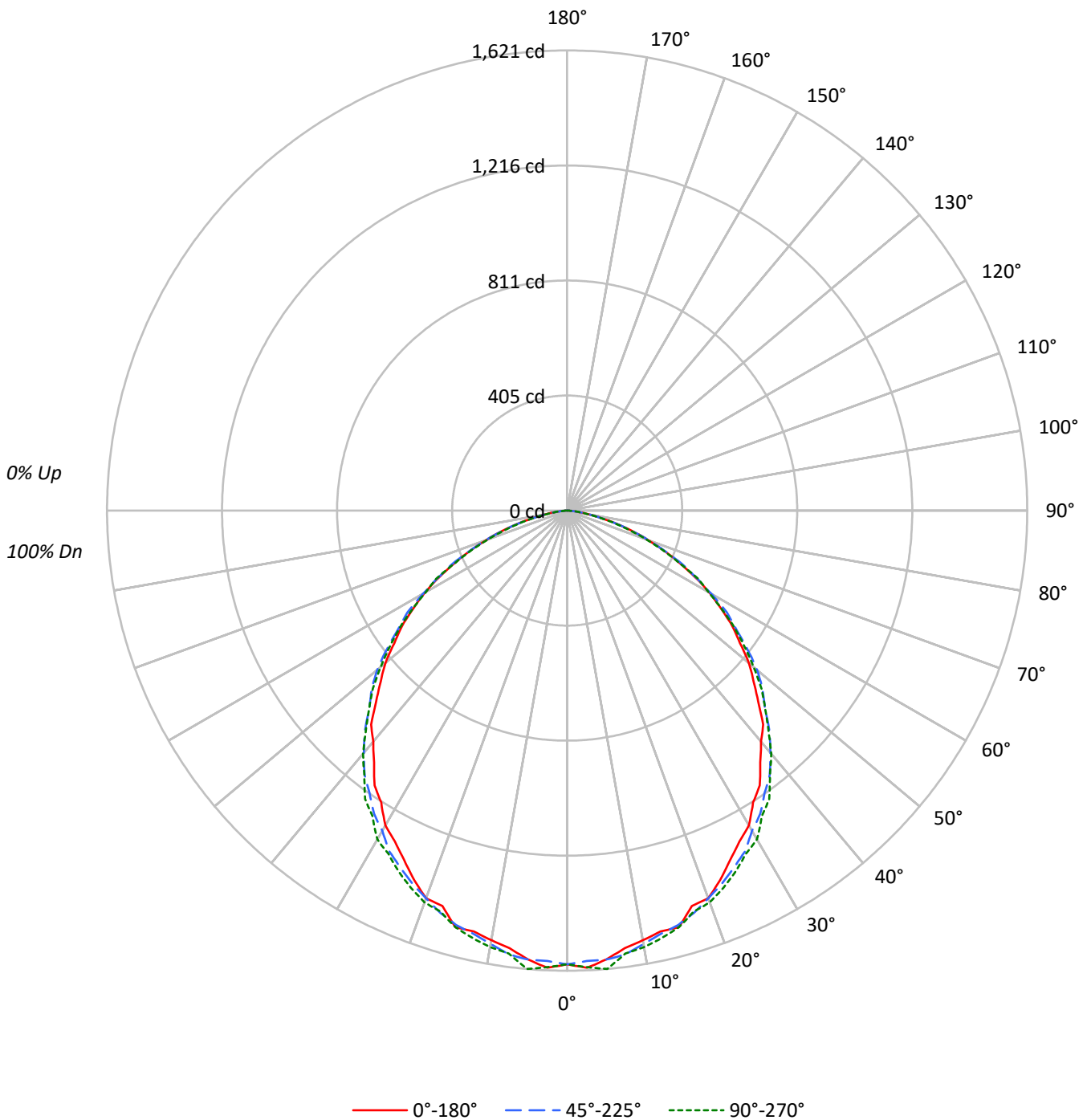
Lumens per Lamp: N/A
Luminaire Lumens: 4028.0 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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	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					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4301	4301	4301
5°	4287	4288	4378
10°	4200	4236	4266
15°	4233	4210	4233
20°	4161	4161	4206
25°	4033	4122	4167
30°	3978	4048	4156
35°	3884	3986	4075
40°	3733	3913	3930
45°	3620	3749	3755
50°	3502	3659	3589
55°	3336	3401	3377
60°	3119	3151	3094
65°	2782	2853	2762
70°	2386	2395	2328
75°	1890	1886	1813
80°	1266	1230	1184
85°	689	682	636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.3	3.7
10°-20°	426.1	10.6
20°-30°	638.3	15.8
30°-40°	756.6	18.8
40°-50°	758.0	18.8
50°-60°	643.4	16.0
60°-70°	433.8	10.8
70°-80°	190.6	4.7
80°-90°	31.0	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°	1214.7	30.2
0°-40°	1971.3	48.9
0°-60°	3372.7	83.7
0°-90°	4028.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4028.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1598	1598	1598	1598	1598	
5°	1587	1583	1588	1583	1621	150
15°	1519	1502	1511	1519	1520	423
25°	1358	1366	1388	1406	1403	628
35°	1182	1186	1213	1241	1241	734
45°	951	969	985	1010	987	736
55°	711	706	725	720	720	633
65°	437	431	448	431	434	434
75°	182	178	181	169	174	195
85°	22	22	22	22	21	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1598.2	1598.2	1598.2	1598.2	1598.2
2.5°	1612.0	1599.9	1588.5	1601.7	1609.8
5°	1586.9	1583.1	1587.5	1582.7	1620.9
7.5°	1554.3	1568.5	1576.7	1571.6	1573.9
10°	1536.9	1532.0	1550.3	1563.1	1561.3
12.5°	1518.3	1525.8	1526.8	1540.6	1541.9
15°	1519.4	1501.8	1511.1	1519.0	1519.6
17.5°	1460.4	1479.3	1485.7	1503.7	1481.4
20°	1453.1	1439.3	1453.1	1471.5	1468.6
22.5°	1408.8	1393.3	1423.0	1439.3	1438.3
25°	1358.4	1365.9	1388.1	1406.3	1403.4
27.5°	1314.3	1322.9	1354.7	1379.7	1363.6
30°	1280.2	1275.9	1302.7	1325.0	1337.4
32.5°	1219.3	1235.0	1266.4	1288.5	1276.7
35°	1182.4	1185.9	1213.4	1241.4	1240.6
37.5°	1117.8	1134.1	1172.7	1180.5	1173.3
40°	1062.7	1079.0	1113.9	1122.4	1118.8
42.5°	1022.1	1025.0	1054.9	1064.6	1049.1
45°	951.3	969.0	985.1	1010.5	986.6
47.5°	891.0	899.3	934.0	940.8	928.2
50°	836.4	839.2	874.1	865.7	857.4
52.5°	767.6	779.8	799.4	797.8	788.1
55°	711.1	706.3	724.9	720.0	719.8
57.5°	643.2	651.5	666.7	658.9	646.3
60°	579.6	579.9	585.4	576.6	574.9
62.5°	508.9	511.3	512.6	501.6	519.4
65°	436.9	431.1	448.0	430.9	433.8
67.5°	370.6	373.5	371.8	361.1	365.2
70°	303.3	307.1	304.4	292.2	295.9
72.5°	241.8	237.3	240.2	224.9	231.9
75°	181.8	178.1	181.4	168.6	174.4
77.5°	123.8	126.7	124.6	117.8	121.7
80°	81.7	79.4	79.4	75.5	76.4
82.5°	47.7	45.4	44.8	43.5	45.4
85°	22.3	21.7	22.1	21.5	20.6
87.5°	8.0	8.3	8.3	7.8	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)