

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: P589530

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-80-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589530
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-LD4-3STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

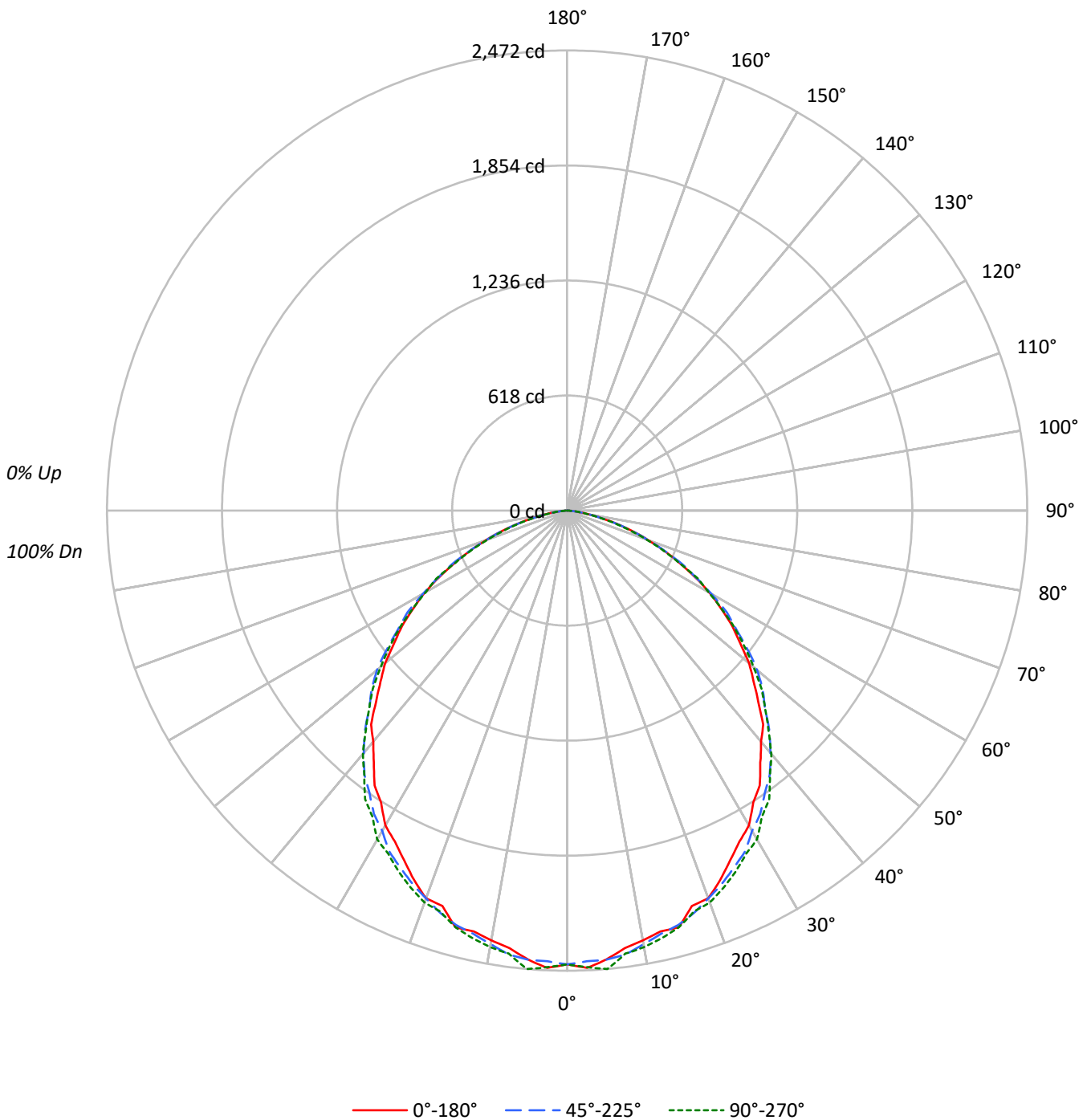
Lumens per Lamp: N/A
Luminaire Lumens: 6144.0 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	6560	6560	6560
5°	6538	6541	6679
10°	6406	6462	6507
15°	6456	6422	6457
20°	6347	6347	6415
25°	6152	6287	6356
30°	6068	6174	6339
35°	5925	6080	6216
40°	5694	5969	5995
45°	5522	5718	5727
50°	5341	5582	5475
55°	5088	5187	5151
60°	4758	4806	4719
65°	4243	4351	4213
70°	3640	3653	3552
75°	2883	2877	2766
80°	1931	1878	1805
85°	1050	1041	973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.3	3.7
10°-20°	649.9	10.6
20°-30°	973.7	15.8
30°-40°	1154.0	18.8
40°-50°	1156.1	18.8
50°-60°	981.4	16.0
60°-70°	661.6	10.8
70°-80°	290.7	4.7
80°-90°	47.2	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°	1852.9	30.2
0°-40°	3006.9	48.9
0°-60°	5144.4	83.7
0°-90°	6144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6144.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2438	2438	2438	2438	2438	
5°	2420	2415	2421	2414	2472	228
15°	2318	2291	2305	2317	2318	646
25°	2072	2083	2117	2145	2141	958
35°	1804	1809	1851	1894	1892	1120
45°	1451	1478	1503	1541	1505	1122
55°	1085	1077	1106	1098	1098	965
65°	666	658	683	657	662	663
75°	277	272	277	257	266	297
85°	34	33	34	33	32	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2437.8	2437.8	2437.8	2437.8	2437.8
2.5°	2458.9	2440.3	2423.0	2443.1	2455.4
5°	2420.5	2414.8	2421.4	2414.2	2472.4
7.5°	2370.7	2392.5	2405.0	2397.2	2400.6
10°	2344.3	2336.7	2364.8	2384.3	2381.4
12.5°	2316.0	2327.3	2328.9	2350.0	2351.9
15°	2317.5	2290.8	2305.0	2316.9	2317.9
17.5°	2227.5	2256.5	2266.2	2293.6	2259.6
20°	2216.5	2195.4	2216.5	2244.5	2240.1
22.5°	2148.8	2125.2	2170.6	2195.4	2193.8
25°	2072.0	2083.4	2117.4	2145.1	2140.7
27.5°	2004.7	2017.9	2066.4	2104.5	2079.9
30°	1952.7	1946.1	1987.1	2021.0	2039.9
32.5°	1859.9	1883.8	1931.7	1965.3	1947.4
35°	1803.6	1808.9	1850.8	1893.6	1892.3
37.5°	1705.0	1729.9	1788.8	1800.7	1789.7
40°	1621.0	1645.9	1699.1	1712.0	1706.6
42.5°	1559.0	1563.4	1609.0	1623.8	1600.2
45°	1451.0	1478.1	1502.6	1541.4	1504.8
47.5°	1359.1	1371.7	1424.6	1435.0	1415.8
50°	1275.7	1280.1	1333.3	1320.4	1307.8
52.5°	1170.9	1189.5	1219.4	1216.8	1202.1
55°	1084.6	1077.4	1105.7	1098.2	1097.9
57.5°	981.1	993.7	1017.0	1005.0	985.8
60°	884.1	884.5	893.0	879.4	876.9
62.5°	776.2	780.0	781.9	765.2	792.2
65°	666.3	657.5	683.3	657.2	661.6
67.5°	565.3	569.7	567.2	550.8	557.1
70°	462.7	468.4	464.3	445.7	451.4
72.5°	368.9	362.0	366.4	343.1	353.8
75°	277.3	271.6	276.7	257.2	266.0
77.5°	188.9	193.3	190.1	179.7	185.7
80°	124.6	121.2	121.2	115.2	116.5
82.5°	72.7	69.2	68.3	66.4	69.2
85°	34.0	33.0	33.7	32.7	31.5
87.5°	12.3	12.6	12.6	12.0	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)