

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: P589685

Luminaire Tested: **FMR-24-2-LD4-4LO-40-UNV-80-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589685
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-LD4-4LO-40-UNV-80-84-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

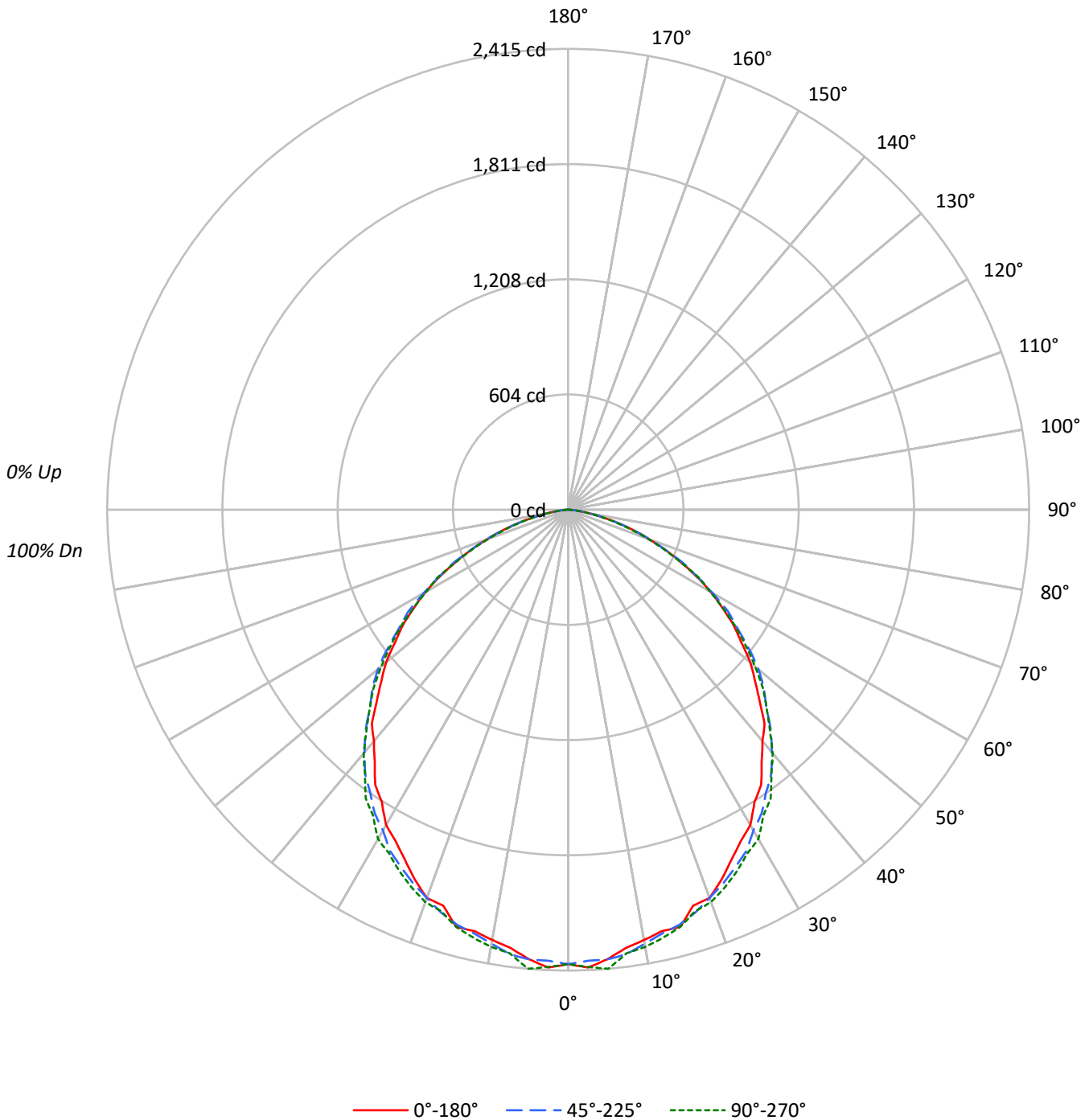
Lumens per Lamp: N/A
Luminaire Lumens: 6001.0 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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				
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°	6407	6407	6407
5°	6386	6389	6523
10°	6257	6311	6356
15°	6306	6272	6307
20°	6200	6200	6266
25°	6009	6141	6208
30°	5927	6031	6191
35°	5787	5938	6072
40°	5562	5830	5856
45°	5394	5586	5593
50°	5216	5452	5348
55°	4970	5067	5031
60°	4648	4694	4610
65°	4144	4250	4115
70°	3556	3568	3469
75°	2816	2809	2701
80°	1886	1835	1762
85°	1025	1016	948



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.0	3.7
10°-20°	634.8	10.6
20°-30°	951.0	15.8
30°-40°	1127.1	18.8
40°-50°	1129.2	18.8
50°-60°	958.5	16.0
60°-70°	646.2	10.8
70°-80°	284.0	4.7
80°-90°	46.1	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°	1809.8	30.2
0°-40°	2936.9	48.9
0°-60°	5024.7	83.7
0°-90°	6001.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6001.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2381	2381	2381	2381	2381	
5°	2364	2359	2365	2358	2415	223
15°	2264	2238	2251	2263	2264	631
25°	2024	2035	2068	2095	2091	936
35°	1762	1767	1808	1850	1848	1094
45°	1417	1444	1468	1506	1470	1096
55°	1059	1052	1080	1073	1072	942
65°	651	642	667	642	646	647
75°	271	265	270	251	260	290
85°	33	32	33	32	31	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2381.0	2381.0	2381.0	2381.0	2381.0
2.5°	2401.6	2383.5	2366.6	2386.3	2398.3
5°	2364.1	2358.6	2365.1	2358.0	2414.9
7.5°	2315.6	2336.8	2349.1	2341.4	2344.8
10°	2289.7	2282.4	2309.7	2328.8	2326.0
12.5°	2262.1	2273.1	2274.7	2295.3	2297.1
15°	2263.6	2237.5	2251.3	2263.0	2263.9
17.5°	2175.7	2204.0	2213.5	2240.2	2207.0
20°	2164.9	2144.3	2164.9	2192.3	2188.0
22.5°	2098.8	2075.8	2120.0	2144.3	2142.8
25°	2023.8	2034.9	2068.1	2095.1	2090.8
27.5°	1958.0	1970.9	2018.3	2055.5	2031.5
30°	1907.3	1900.8	1940.8	1974.0	1992.5
32.5°	1816.6	1840.0	1886.7	1919.6	1902.1
35°	1761.6	1766.8	1807.7	1849.5	1848.3
37.5°	1665.3	1689.6	1747.1	1758.8	1748.0
40°	1583.3	1607.6	1659.5	1672.1	1666.9
42.5°	1522.7	1527.0	1571.6	1586.0	1563.0
45°	1417.3	1443.7	1467.7	1505.5	1469.8
47.5°	1327.5	1339.8	1391.4	1401.6	1382.8
50°	1246.0	1250.3	1302.3	1289.7	1277.4
52.5°	1143.6	1161.8	1191.0	1188.5	1174.1
55°	1059.4	1052.3	1080.0	1072.6	1072.3
57.5°	958.3	970.6	993.3	981.6	962.9
60°	863.6	863.9	872.2	859.0	856.5
62.5°	758.1	761.8	763.7	747.4	773.8
65°	650.8	642.2	667.4	641.9	646.2
67.5°	552.1	556.4	554.0	538.0	544.2
70°	451.9	457.5	453.5	435.3	440.9
72.5°	360.3	353.5	357.8	335.1	345.6
75°	270.8	265.3	270.2	251.2	259.8
77.5°	184.5	188.8	185.7	175.5	181.4
80°	121.7	118.4	118.4	112.5	113.7
82.5°	71.0	67.6	66.7	64.9	67.6
85°	33.2	32.3	32.9	32.0	30.7
87.5°	12.0	12.3	12.3	11.7	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)