

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: P589824

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-81-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589824
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-LD4-4STD-50-UNV-81-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

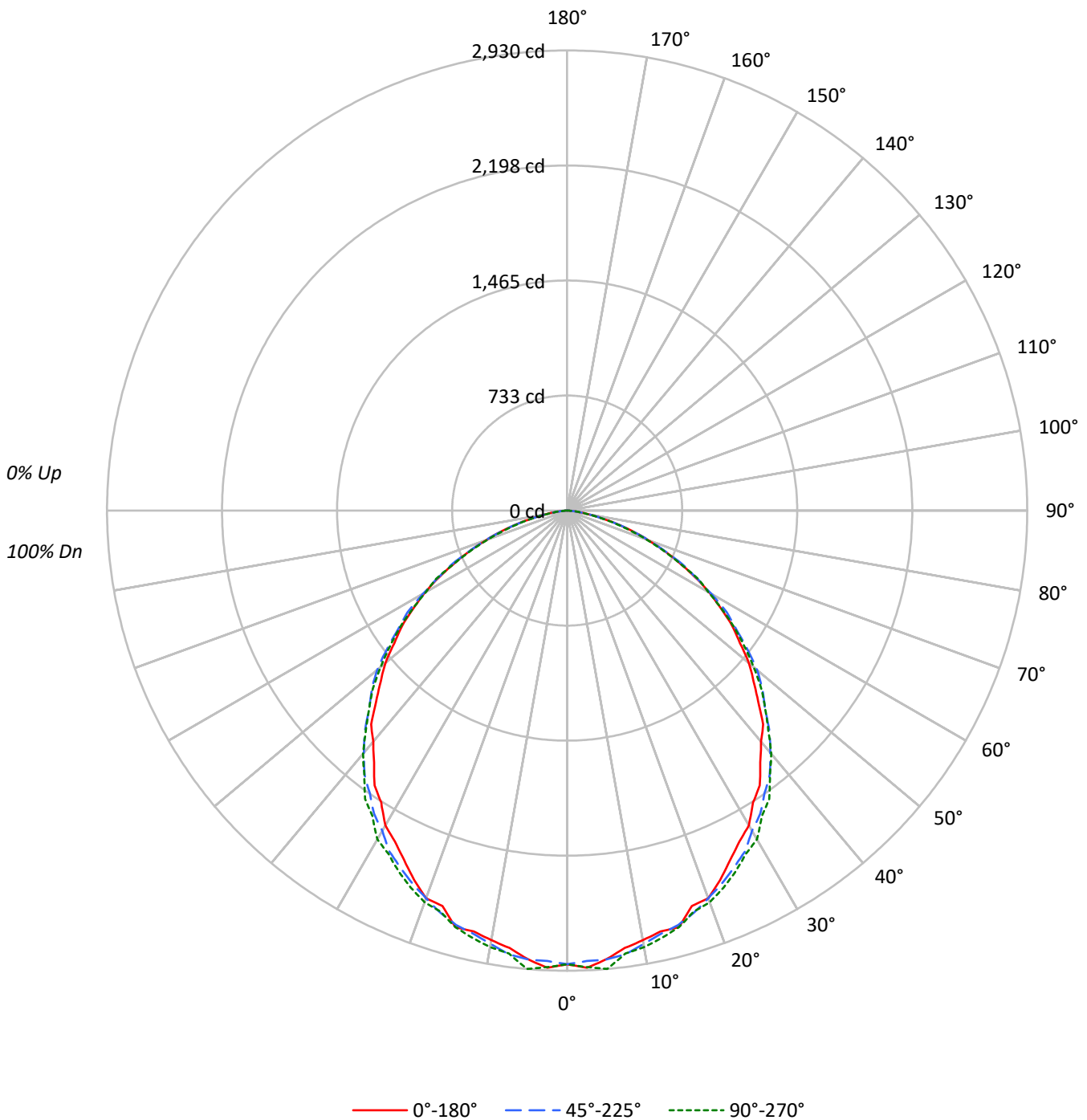
Lumens per Lamp: N/A
Luminaire Lumens: 7280.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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	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°	7773	7773	7773
5°	7747	7750	7913
10°	7590	7656	7711
15°	7650	7609	7651
20°	7521	7521	7601
25°	7290	7449	7531
30°	7190	7316	7511
35°	7020	7204	7366
40°	6747	7072	7104
45°	6543	6776	6786
50°	6328	6614	6487
55°	6030	6147	6103
60°	5638	5695	5592
65°	5027	5156	4991
70°	4313	4328	4208
75°	3417	3408	3276
80°	2289	2225	2139
85°	1244	1232	1152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.7	3.7
10°-20°	770.1	10.6
20°-30°	1153.7	15.8
30°-40°	1367.4	18.8
40°-50°	1369.9	18.8
50°-60°	1162.8	16.0
60°-70°	784.0	10.8
70°-80°	344.5	4.7
80°-90°	56.0	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°	2195.5	30.2
0°-40°	3562.8	48.9
0°-60°	6095.6	83.7
0°-90°	7280.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7280.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2888	2888	2888	2888	2888	
5°	2868	2861	2869	2860	2930	270
15°	2746	2714	2731	2745	2746	765
25°	2455	2469	2509	2542	2536	1135
35°	2137	2143	2193	2244	2242	1327
45°	1719	1751	1780	1826	1783	1330
55°	1285	1277	1310	1301	1301	1143
65°	790	779	810	779	784	785
75°	329	322	328	305	315	352
85°	40	39	40	39	37	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2888.5	2888.5	2888.5	2888.5	2888.5
2.5°	2913.5	2891.5	2871.0	2894.9	2909.4
5°	2868.0	2861.3	2869.1	2860.5	2929.5
7.5°	2809.1	2834.8	2849.7	2840.4	2844.5
10°	2777.8	2768.8	2802.0	2825.1	2821.8
12.5°	2744.2	2757.6	2759.5	2784.5	2786.7
15°	2746.1	2714.4	2731.1	2745.3	2746.4
17.5°	2639.4	2673.7	2685.3	2717.7	2677.4
20°	2626.3	2601.3	2626.3	2659.5	2654.3
22.5°	2546.1	2518.2	2571.9	2601.3	2599.5
25°	2455.1	2468.6	2508.9	2541.7	2536.5
27.5°	2375.3	2391.0	2448.4	2493.6	2464.5
30°	2313.8	2306.0	2354.5	2394.7	2417.1
32.5°	2203.8	2232.1	2288.8	2328.7	2307.5
35°	2137.0	2143.4	2193.0	2243.7	2242.2
37.5°	2020.3	2049.7	2119.5	2133.7	2120.6
40°	1920.7	1950.2	2013.2	2028.5	2022.2
42.5°	1847.2	1852.5	1906.5	1924.1	1896.1
45°	1719.3	1751.4	1780.5	1826.4	1783.1
47.5°	1610.4	1625.3	1688.0	1700.3	1677.5
50°	1511.6	1516.8	1579.8	1564.5	1549.6
52.5°	1387.4	1409.4	1444.8	1441.8	1424.3
55°	1285.2	1276.6	1310.2	1301.2	1300.9
57.5°	1162.5	1177.4	1205.0	1190.8	1168.1
60°	1047.6	1048.0	1058.1	1042.0	1039.0
62.5°	919.7	924.2	926.4	906.6	938.7
65°	789.5	779.1	809.7	778.7	783.9
67.5°	669.8	675.0	672.1	652.7	660.1
70°	548.2	555.0	550.1	528.1	534.8
72.5°	437.1	428.9	434.1	406.5	419.2
75°	328.6	321.9	327.8	304.7	315.1
77.5°	223.8	229.0	225.3	213.0	220.0
80°	147.7	143.6	143.6	136.5	138.0
82.5°	86.2	82.0	80.9	78.7	82.0
85°	40.3	39.2	39.9	38.8	37.3
87.5°	14.5	14.9	14.9	14.2	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)