

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: P589248

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

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589248
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-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

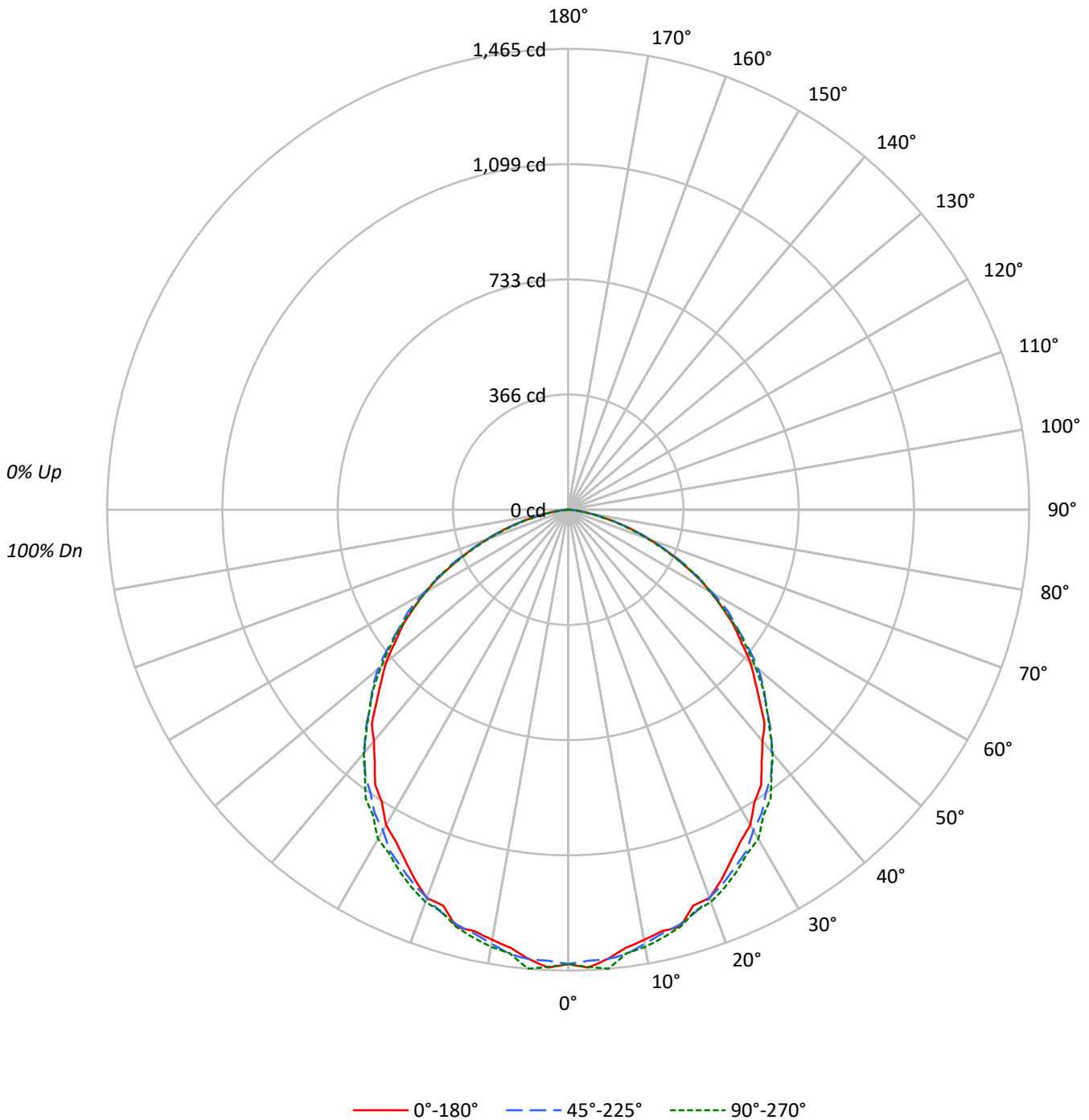
Lumens per Lamp: N/A
Luminaire Lumens: 3640.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3887	3887	3887
5°	3874	3875	3957
10°	3795	3828	3855
15°	3825	3804	3826
20°	3761	3761	3801
25°	3645	3725	3765
30°	3595	3658	3755
35°	3510	3602	3683
40°	3374	3536	3552
45°	3272	3388	3393
50°	3164	3307	3244
55°	3015	3073	3051
60°	2819	2847	2796
65°	2514	2578	2496
70°	2157	2164	2104
75°	1708	1704	1639
80°	1144	1113	1069
85°	621	618	574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	3.7
10°-20°	385.0	10.6
20°-30°	576.9	15.8
30°-40°	683.7	18.8
40°-50°	684.9	18.8
50°-60°	581.4	16.0
60°-70°	392.0	10.8
70°-80°	172.3	4.7
80°-90°	28.0	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°	1097.7	30.2
0°-40°	1781.4	48.9
0°-60°	3047.8	83.7
0°-90°	3640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3640.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1444	1444	1444	1444	1444	
5°	1434	1431	1435	1430	1465	135
15°	1373	1357	1366	1373	1373	383
25°	1228	1234	1254	1271	1268	568
35°	1068	1072	1096	1122	1121	663
45°	860	876	890	913	892	665
55°	643	638	655	651	650	572
65°	395	390	405	389	392	393
75°	164	161	164	152	158	176
85°	20	20	20	19	19	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1444.3	1444.3	1444.3	1444.3	1444.3
2.5°	1456.8	1445.8	1435.5	1447.4	1454.7
5°	1434.0	1430.6	1434.6	1430.3	1464.8
7.5°	1404.5	1417.4	1424.9	1420.2	1422.3
10°	1388.9	1384.4	1401.0	1412.6	1410.9
12.5°	1372.1	1378.8	1379.7	1392.2	1393.4
15°	1373.0	1357.2	1365.6	1372.7	1373.2
17.5°	1319.7	1336.8	1342.6	1358.9	1338.7
20°	1313.2	1300.7	1313.2	1329.8	1327.2
22.5°	1273.1	1259.1	1285.9	1300.7	1299.7
25°	1227.6	1234.3	1254.4	1270.8	1268.2
27.5°	1187.7	1195.5	1224.2	1246.8	1232.2
30°	1156.9	1153.0	1177.2	1197.4	1208.6
32.5°	1101.9	1116.1	1144.4	1164.4	1153.7
35°	1068.5	1071.7	1096.5	1121.8	1121.1
37.5°	1010.1	1024.9	1059.7	1066.8	1060.3
40°	960.4	975.1	1006.6	1014.2	1011.1
42.5°	923.6	926.2	953.3	962.0	948.0
45°	859.7	875.7	890.2	913.2	891.5
47.5°	805.2	812.7	844.0	850.1	838.8
50°	755.8	758.4	789.9	782.3	774.8
52.5°	693.7	704.7	722.4	720.9	712.2
55°	642.6	638.3	655.1	650.6	650.4
57.5°	581.2	588.7	602.5	595.4	584.0
60°	523.8	524.0	529.0	521.0	519.5
62.5°	459.9	462.1	463.2	453.3	469.4
65°	394.8	389.5	404.8	389.4	392.0
67.5°	334.9	337.5	336.0	326.3	330.1
70°	274.1	277.5	275.1	264.1	267.4
72.5°	218.6	214.4	217.1	203.3	209.6
75°	164.3	160.9	163.9	152.4	157.6
77.5°	111.9	114.5	112.6	106.5	110.0
80°	73.8	71.8	71.8	68.3	69.0
82.5°	43.1	41.0	40.5	39.3	41.0
85°	20.1	19.6	20.0	19.4	18.6
87.5°	7.3	7.5	7.5	7.1	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)