

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: P589457

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589457
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-LD4-3LO-50-UNV-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

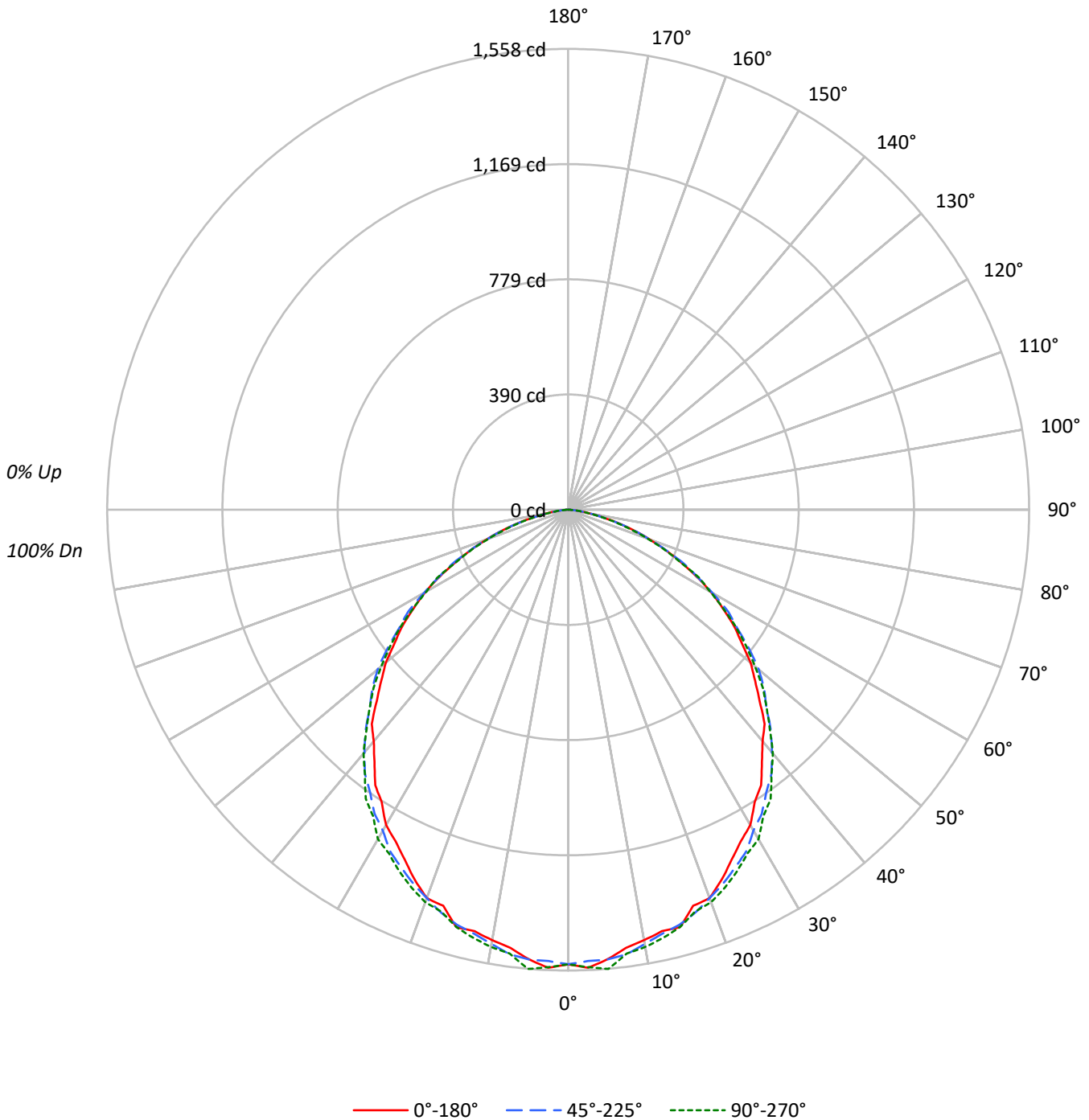
Lumens per Lamp: N/A
Luminaire Lumens: 3873.0 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	4135	4135	4135
5°	4122	4123	4210
10°	4038	4073	4102
15°	4070	4048	4070
20°	4001	4001	4044
25°	3878	3963	4007
30°	3825	3892	3996
35°	3735	3833	3919
40°	3589	3762	3779
45°	3481	3605	3610
50°	3367	3519	3451
55°	3208	3270	3247
60°	2999	3030	2975
65°	2674	2743	2656
70°	2295	2303	2238
75°	1817	1813	1744
80°	1218	1184	1137
85°	661	655	611



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.5	3.7
10°-20°	409.7	10.6
20°-30°	613.8	15.8
30°-40°	727.5	18.8
40°-50°	728.8	18.8
50°-60°	618.6	16.0
60°-70°	417.1	10.8
70°-80°	183.3	4.7
80°-90°	29.8	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°	1168.0	30.2
0°-40°	1895.5	48.9
0°-60°	3242.9	83.7
0°-90°	3873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1526	1522	1526	1522	1558	144
15°	1461	1444	1453	1460	1461	407
25°	1306	1313	1335	1352	1349	604
35°	1137	1140	1167	1194	1193	706
45°	915	932	947	972	949	708
55°	684	679	697	692	692	608
65°	420	414	431	414	417	418
75°	175	171	174	162	168	187
85°	21	21	21	21	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.7	1536.7	1536.7	1536.7	1536.7
2.5°	1550.0	1538.3	1527.4	1540.1	1547.8
5°	1525.8	1522.2	1526.4	1521.8	1558.5
7.5°	1494.4	1508.1	1516.1	1511.1	1513.3
10°	1477.8	1473.0	1490.7	1503.0	1501.2
12.5°	1459.9	1467.1	1468.1	1481.4	1482.5
15°	1460.9	1444.0	1453.0	1460.5	1461.1
17.5°	1404.2	1422.4	1428.6	1445.8	1424.4
20°	1397.2	1383.9	1397.2	1414.9	1412.1
22.5°	1354.6	1339.7	1368.3	1383.9	1382.9
25°	1306.2	1313.3	1334.7	1352.2	1349.4
27.5°	1263.7	1272.0	1302.6	1326.6	1311.1
30°	1231.0	1226.8	1252.6	1274.0	1285.9
32.5°	1172.4	1187.5	1217.7	1238.9	1227.6
35°	1136.9	1140.3	1166.7	1193.7	1192.9
37.5°	1074.8	1090.5	1127.6	1135.1	1128.2
40°	1021.8	1037.5	1071.0	1079.2	1075.8
42.5°	982.7	985.5	1014.3	1023.6	1008.7
45°	914.7	931.7	947.2	971.6	948.6
47.5°	856.7	864.7	898.0	904.6	892.5
50°	804.2	806.9	840.5	832.3	824.4
52.5°	738.1	749.8	768.7	767.1	757.7
55°	683.7	679.2	697.0	692.3	692.1
57.5°	618.5	626.4	641.1	633.5	621.4
60°	557.3	557.5	562.9	554.4	552.8
62.5°	489.3	491.7	492.9	482.3	499.4
65°	420.0	414.5	430.8	414.3	417.1
67.5°	356.3	359.1	357.5	347.2	351.2
70°	291.7	295.2	292.7	281.0	284.5
72.5°	232.5	228.2	231.0	216.3	223.0
75°	174.8	171.2	174.4	162.1	167.7
77.5°	119.0	121.8	119.8	113.3	117.1
80°	78.6	76.4	76.4	72.6	73.4
82.5°	45.8	43.7	43.1	41.9	43.7
85°	21.4	20.8	21.2	20.6	19.8
87.5°	7.7	7.9	7.9	7.5	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)