

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: P589260

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-82-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589260
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-82-97-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

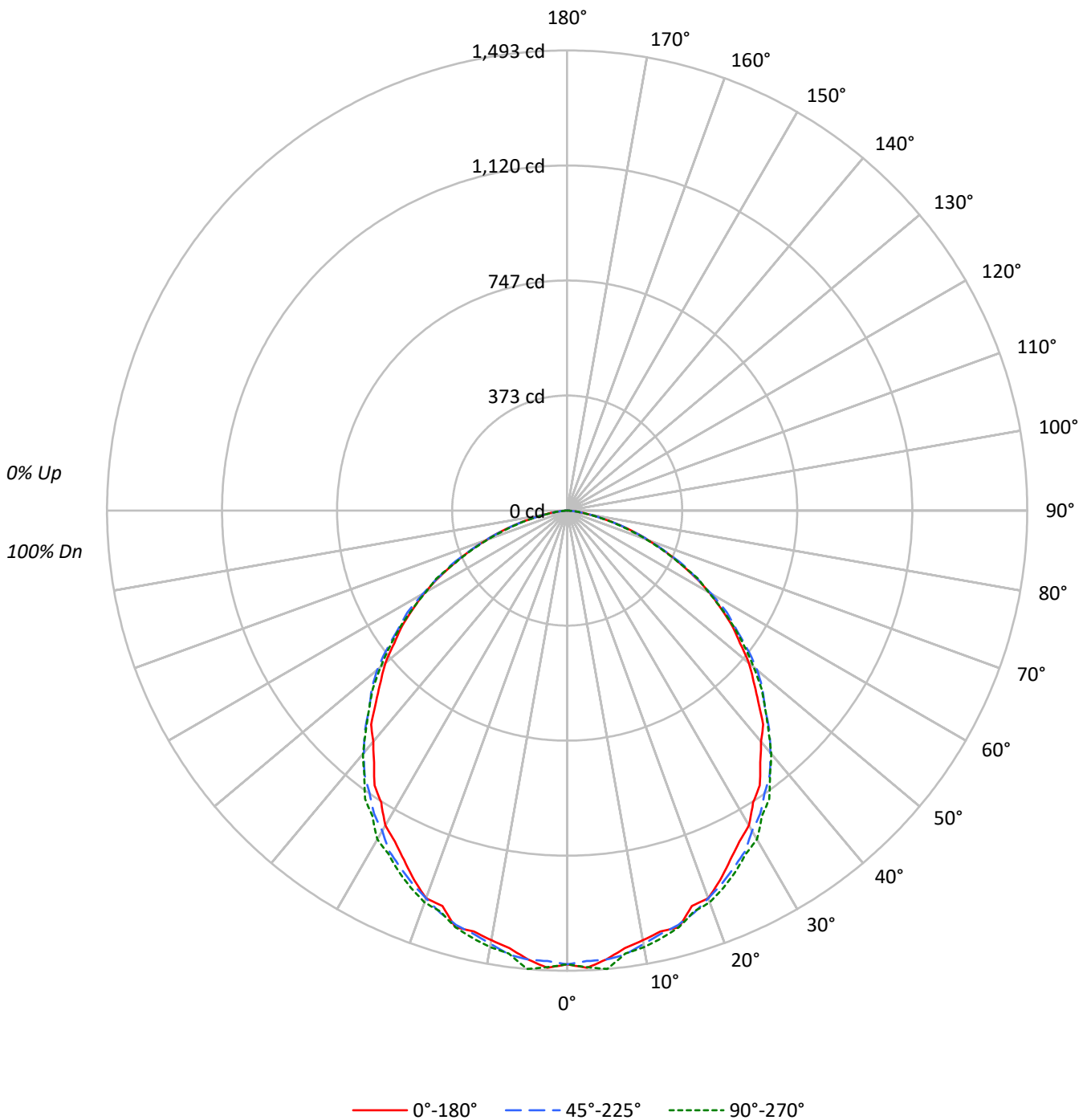
Lumens per Lamp: N/A
Luminaire Lumens: 3710.0 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	3961	3961	3961
5°	3948	3950	4033
10°	3868	3902	3929
15°	3899	3877	3899
20°	3833	3833	3874
25°	3715	3796	3838
30°	3664	3728	3828
35°	3578	3671	3754
40°	3438	3604	3620
45°	3334	3453	3458
50°	3225	3370	3306
55°	3073	3133	3110
60°	2873	2902	2850
65°	2562	2627	2544
70°	2198	2205	2144
75°	1740	1737	1670
80°	1167	1134	1089
85°	633	627	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.5	3.7
10°-20°	392.4	10.6
20°-30°	588.0	15.8
30°-40°	696.8	18.8
40°-50°	698.1	18.8
50°-60°	592.6	16.0
60°-70°	399.5	10.8
70°-80°	175.6	4.7
80°-90°	28.5	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°	1118.9	30.2
0°-40°	1815.7	48.9
0°-60°	3106.4	83.7
0°-90°	3710.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3710.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1472	1472	1472	1472	1472	
5°	1462	1458	1462	1458	1493	138
15°	1399	1383	1392	1399	1400	390
25°	1251	1258	1279	1295	1293	578
35°	1089	1092	1118	1143	1143	676
45°	876	892	907	931	909	678
55°	655	651	668	663	663	583
65°	402	397	413	397	400	400
75°	167	164	167	155	161	179
85°	20	20	20	20	19	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1472.0	1472.0	1472.0	1472.0	1472.0
2.5°	1484.8	1473.6	1463.1	1475.3	1482.7
5°	1461.6	1458.2	1462.2	1457.8	1492.9
7.5°	1431.6	1444.7	1452.3	1447.5	1449.6
10°	1415.6	1411.0	1427.9	1439.7	1438.0
12.5°	1398.5	1405.3	1406.3	1419.0	1420.1
15°	1399.4	1383.3	1391.8	1399.1	1399.6
17.5°	1345.1	1362.6	1368.5	1385.0	1364.5
20°	1338.4	1325.7	1338.4	1355.3	1352.7
22.5°	1297.6	1283.3	1310.7	1325.7	1324.7
25°	1251.2	1258.0	1278.6	1295.3	1292.6
27.5°	1210.5	1218.5	1247.8	1270.8	1255.9
30°	1179.1	1175.2	1199.9	1220.4	1231.8
32.5°	1123.1	1137.5	1166.4	1186.8	1175.9
35°	1089.1	1092.3	1117.6	1143.4	1142.7
37.5°	1029.6	1044.6	1080.1	1087.3	1080.7
40°	978.8	993.8	1026.0	1033.8	1030.5
42.5°	941.4	944.0	971.6	980.5	966.3
45°	876.2	892.5	907.4	930.7	908.7
47.5°	820.7	828.3	860.2	866.5	854.9
50°	770.3	773.0	805.1	797.3	789.7
52.5°	707.0	718.2	736.3	734.8	725.8
55°	655.0	650.6	667.7	663.1	662.9
57.5°	592.4	600.0	614.1	606.9	595.3
60°	533.9	534.1	539.2	531.0	529.5
62.5°	468.7	471.0	472.1	462.0	478.4
65°	402.4	397.0	412.6	396.9	399.5
67.5°	341.4	344.0	342.5	332.6	336.4
70°	279.4	282.8	280.3	269.1	272.5
72.5°	222.8	218.6	221.2	207.2	213.6
75°	167.4	164.0	167.1	155.3	160.6
77.5°	114.0	116.7	114.8	108.5	112.1
80°	75.3	73.2	73.2	69.6	70.3
82.5°	43.9	41.8	41.2	40.1	41.8
85°	20.5	20.0	20.3	19.8	19.0
87.5°	7.4	7.6	7.6	7.2	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)