

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: P589192

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589192
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-35-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

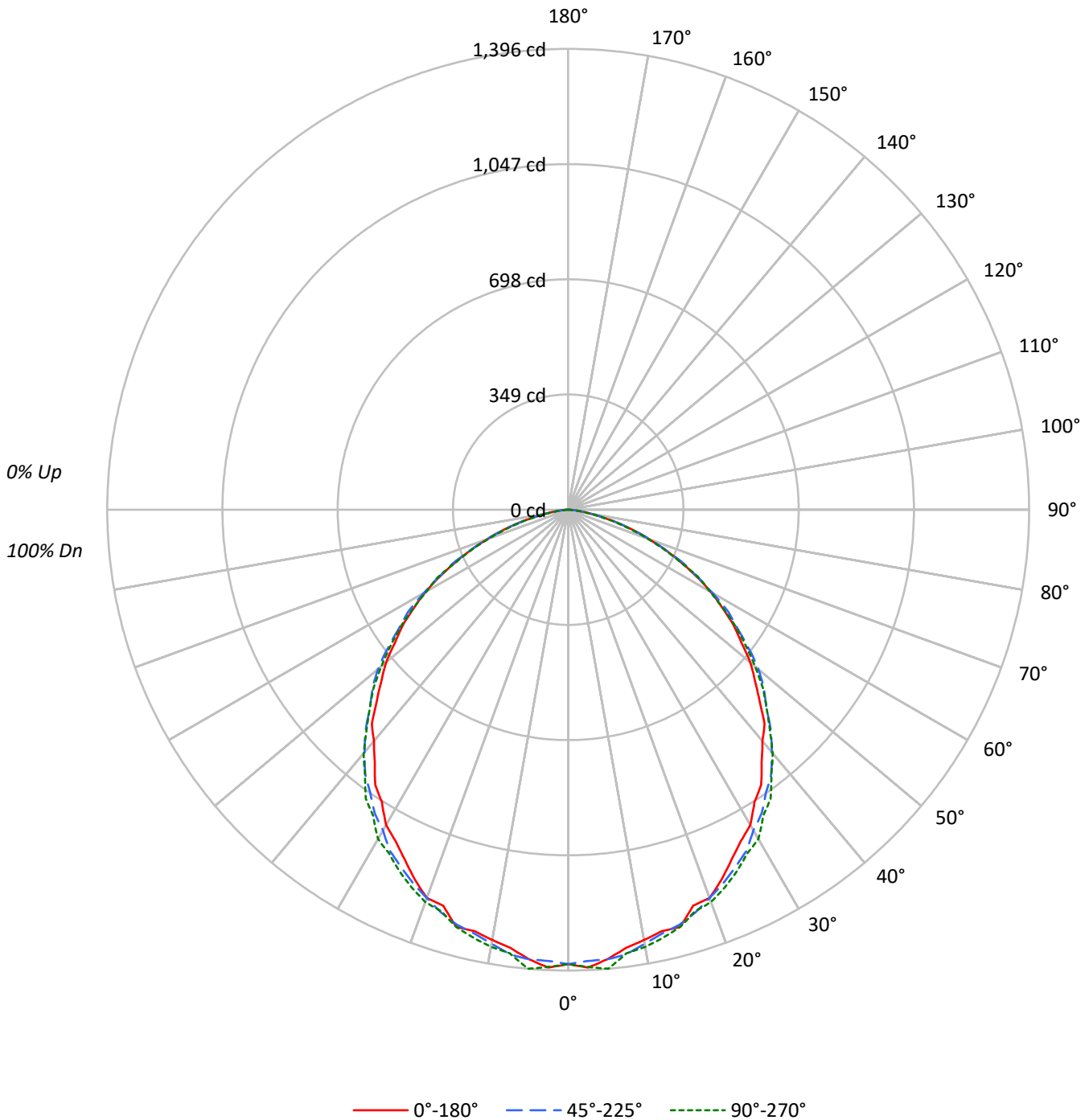
Lumens per Lamp: N/A
Luminaire Lumens: 3469.0 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P589192

CATALOG NUMBER: FMR-24-2-LD4-2STD-35-UNV-82-87-EDD

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°	3704	3704	3704
5°	3692	3693	3771
10°	3617	3648	3674
15°	3645	3626	3646
20°	3584	3584	3622
25°	3474	3550	3589
30°	3426	3486	3579
35°	3345	3433	3510
40°	3215	3370	3385
45°	3118	3229	3234
50°	3015	3152	3091
55°	2873	2929	2908
60°	2687	2714	2665
65°	2395	2457	2379
70°	2055	2062	2005
75°	1628	1624	1562
80°	1091	1060	1020
85°	593	587	550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.5	3.7
10°-20°	366.9	10.6
20°-30°	549.7	15.8
30°-40°	651.6	18.8
40°-50°	652.8	18.8
50°-60°	554.1	16.0
60°-70°	373.6	10.8
70°-80°	164.2	4.7
80°-90°	26.7	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°	1046.2	30.2
0°-40°	1697.7	48.9
0°-60°	2904.6	83.7
0°-90°	3469.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3469.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1376	1376	1376	1376	1376	
5°	1367	1363	1367	1363	1396	129
15°	1308	1293	1301	1308	1309	365
25°	1170	1176	1196	1211	1209	541
35°	1018	1021	1045	1069	1068	632
45°	819	835	848	870	850	634
55°	612	608	624	620	620	545
65°	376	371	386	371	374	374
75°	157	153	156	145	150	168
85°	19	19	19	18	18	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1376.4	1376.4	1376.4	1376.4	1376.4
2.5°	1388.3	1377.8	1368.1	1379.4	1386.4
5°	1366.6	1363.4	1367.2	1363.1	1396.0
7.5°	1338.6	1350.8	1357.9	1353.5	1355.4
10°	1323.6	1319.4	1335.2	1346.2	1344.6
12.5°	1307.6	1314.0	1314.9	1326.8	1327.9
15°	1308.5	1293.4	1301.4	1308.2	1308.7
17.5°	1257.7	1274.0	1279.6	1295.0	1275.8
20°	1251.5	1239.6	1251.5	1267.3	1264.8
22.5°	1213.3	1199.9	1225.5	1239.6	1238.7
25°	1169.9	1176.3	1195.5	1211.1	1208.6
27.5°	1131.9	1139.3	1166.7	1188.2	1174.3
30°	1102.6	1098.8	1121.9	1141.1	1151.8
32.5°	1050.1	1063.6	1090.6	1109.7	1099.5
35°	1018.3	1021.3	1045.0	1069.1	1068.4
37.5°	962.7	976.7	1010.0	1016.7	1010.5
40°	915.2	929.3	959.3	966.6	963.6
42.5°	880.2	882.7	908.5	916.8	903.5
45°	819.3	834.6	848.4	870.3	849.7
47.5°	767.4	774.5	804.3	810.2	799.4
50°	720.3	722.8	752.8	745.5	738.4
52.5°	661.1	671.6	688.5	687.1	678.7
55°	612.4	608.3	624.3	620.1	619.9
57.5°	553.9	561.0	574.2	567.4	556.6
60°	499.2	499.4	504.2	496.5	495.1
62.5°	438.2	440.4	441.4	432.0	447.3
65°	376.2	371.2	385.8	371.1	373.6
67.5°	319.2	321.7	320.2	311.0	314.6
70°	261.2	264.4	262.1	251.6	254.8
72.5°	208.3	204.4	206.9	193.7	199.8
75°	156.6	153.4	156.2	145.2	150.2
77.5°	106.6	109.1	107.3	101.5	104.9
80°	70.4	68.4	68.4	65.0	65.8
82.5°	41.1	39.1	38.6	37.5	39.1
85°	19.2	18.7	19.0	18.5	17.8
87.5°	6.9	7.1	7.1	6.8	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)