

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: P589417

Luminaire Tested: **FMR-24-2-LD4-3LO-40-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589417
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-40-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

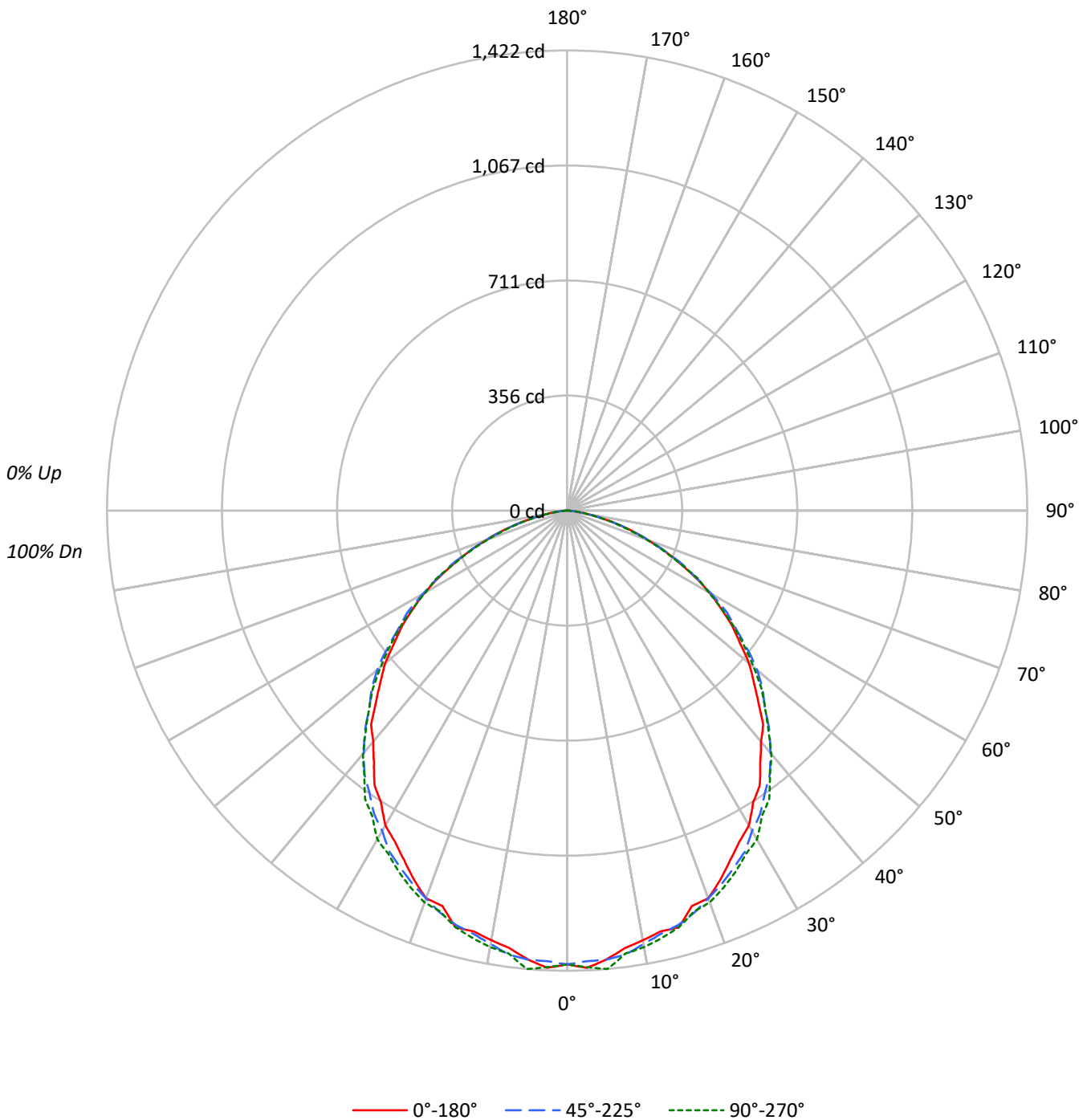
Lumens per Lamp: N/A
Luminaire Lumens: 3534.0 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589417

CATALOG NUMBER: FMR-24-2-LD4-3LO-40-UNV-82-88-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°	3773	3773	3773
5°	3761	3762	3841
10°	3684	3717	3743
15°	3714	3694	3714
20°	3651	3651	3690
25°	3539	3616	3656
30°	3490	3551	3646
35°	3408	3497	3575
40°	3275	3433	3448
45°	3176	3289	3294
50°	3072	3211	3149
55°	2927	2984	2963
60°	2737	2764	2715
65°	2441	2503	2423
70°	2094	2101	2043
75°	1658	1654	1591
80°	1111	1080	1038
85°	605	599	559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.9	3.7
10°-20°	373.8	10.6
20°-30°	560.1	15.8
30°-40°	663.8	18.8
40°-50°	665.0	18.8
50°-60°	564.5	16.0
60°-70°	380.6	10.8
70°-80°	167.2	4.7
80°-90°	27.2	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°	1065.8	30.2
0°-40°	1729.5	48.9
0°-60°	2959.0	83.7
0°-90°	3534.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3534.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1392	1389	1393	1389	1422	131
15°	1333	1318	1326	1333	1333	371
25°	1192	1198	1218	1234	1231	551
35°	1037	1040	1065	1089	1088	644
45°	835	850	864	887	866	646
55°	624	620	636	632	632	555
65°	383	378	393	378	381	381
75°	160	156	159	148	153	171
85°	20	19	19	19	18	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1402.2	1402.2	1402.2	1402.2	1402.2
2.5°	1414.3	1403.7	1393.7	1405.3	1412.3
5°	1392.2	1389.0	1392.8	1388.6	1422.1
7.5°	1363.6	1376.1	1383.4	1378.8	1380.8
10°	1348.4	1344.1	1360.2	1371.4	1369.8
12.5°	1332.1	1338.7	1339.6	1351.7	1352.8
15°	1333.0	1317.7	1325.8	1332.7	1333.2
17.5°	1281.3	1297.9	1303.5	1319.3	1299.7
20°	1274.9	1262.8	1274.9	1291.0	1288.5
22.5°	1236.0	1222.4	1248.5	1262.8	1261.9
25°	1191.8	1198.3	1217.9	1233.8	1231.3
27.5°	1153.1	1160.7	1188.6	1210.5	1196.4
30°	1123.2	1119.4	1142.9	1162.5	1173.4
32.5°	1069.8	1083.6	1111.1	1130.5	1120.1
35°	1037.4	1040.5	1064.6	1089.2	1088.4
37.5°	980.7	995.0	1028.9	1035.8	1029.4
40°	932.4	946.7	977.3	984.7	981.6
42.5°	896.7	899.3	925.5	934.0	920.4
45°	834.6	850.2	864.3	886.6	865.6
47.5°	781.8	789.0	819.4	825.4	814.3
50°	733.8	736.3	766.9	759.5	752.2
52.5°	673.5	684.2	701.4	699.9	691.4
55°	623.9	619.7	636.0	631.7	631.5
57.5°	564.3	571.6	585.0	578.1	567.0
60°	508.6	508.7	513.6	505.8	504.4
62.5°	446.5	448.6	449.7	440.1	455.7
65°	383.3	378.2	393.1	378.0	380.6
67.5°	325.2	327.7	326.2	316.8	320.5
70°	266.1	269.4	267.0	256.4	259.6
72.5°	212.2	208.2	210.7	197.3	203.5
75°	159.5	156.2	159.1	147.9	153.0
77.5°	108.6	111.2	109.4	103.4	106.8
80°	71.7	69.7	69.7	66.3	67.0
82.5°	41.8	39.8	39.3	38.2	39.8
85°	19.6	19.0	19.4	18.8	18.1
87.5°	7.1	7.2	7.2	6.9	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)