

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: P589377

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-81-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589377
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-35-UNV-81-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

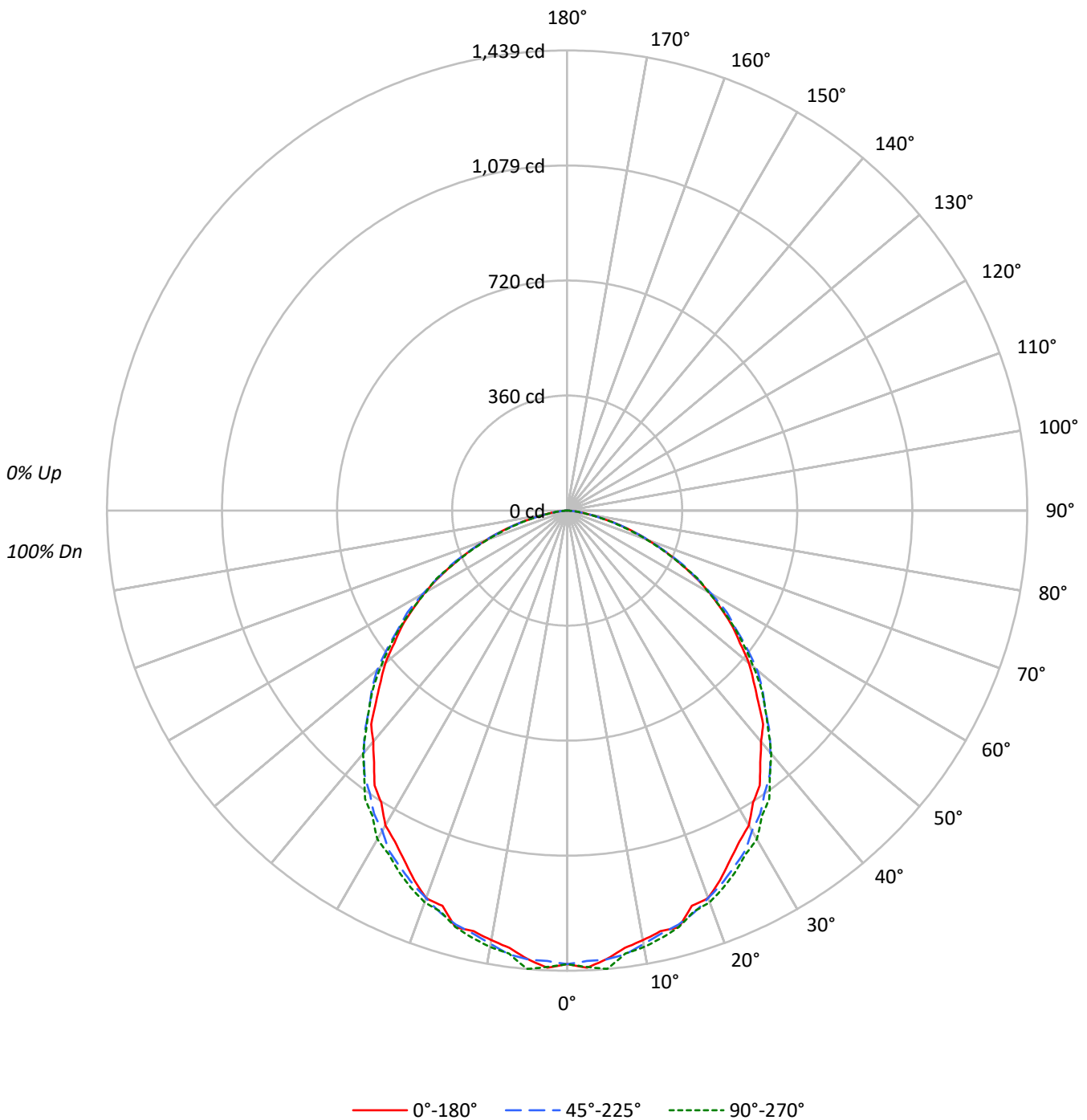
Lumens per Lamp: N/A
Luminaire Lumens: 3575.0 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	3817	3817	3817
5°	3804	3806	3886
10°	3727	3760	3786
15°	3757	3736	3757
20°	3693	3693	3733
25°	3580	3658	3698
30°	3530	3593	3688
35°	3447	3538	3617
40°	3313	3473	3488
45°	3213	3327	3332
50°	3108	3248	3186
55°	2961	3019	2997
60°	2769	2796	2746
65°	2469	2532	2451
70°	2118	2125	2066
75°	1678	1674	1609
80°	1124	1093	1051
85°	611	605	565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	3.7
10°-20°	378.2	10.6
20°-30°	566.5	15.8
30°-40°	671.5	18.8
40°-50°	672.7	18.8
50°-60°	571.0	16.0
60°-70°	385.0	10.8
70°-80°	169.2	4.7
80°-90°	27.5	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°	1078.1	30.2
0°-40°	1749.6	48.9
0°-60°	2993.4	83.7
0°-90°	3575.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3575.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1418	1418	1418	1418	1418	
5°	1408	1405	1409	1405	1439	133
15°	1348	1333	1341	1348	1349	376
25°	1206	1212	1232	1248	1246	557
35°	1049	1052	1077	1102	1101	652
45°	844	860	874	897	876	653
55°	631	627	643	639	639	561
65°	388	383	398	382	385	386
75°	161	158	161	150	155	173
85°	20	19	20	19	18	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1418.5	1418.5	1418.5	1418.5	1418.5
2.5°	1430.7	1419.9	1409.9	1421.6	1428.7
5°	1408.4	1405.1	1408.9	1404.7	1438.6
7.5°	1379.5	1392.1	1399.4	1394.8	1396.9
10°	1364.1	1359.7	1376.0	1387.3	1385.7
12.5°	1347.6	1354.2	1355.1	1367.4	1368.5
15°	1348.5	1332.9	1341.2	1348.1	1348.7
17.5°	1296.1	1313.0	1318.7	1334.6	1314.8
20°	1289.7	1277.4	1289.7	1306.0	1303.5
22.5°	1250.3	1236.6	1263.0	1277.4	1276.5
25°	1205.7	1212.2	1232.0	1248.1	1245.6
27.5°	1166.5	1174.2	1202.4	1224.5	1210.2
30°	1136.2	1132.4	1156.2	1176.0	1187.0
32.5°	1082.2	1096.1	1124.0	1143.6	1133.1
35°	1049.4	1052.5	1076.9	1101.8	1101.1
37.5°	992.1	1006.6	1040.8	1047.8	1041.4
40°	943.2	957.7	988.6	996.1	993.0
42.5°	907.1	909.7	936.2	944.9	931.1
45°	844.3	860.1	874.3	896.9	875.6
47.5°	790.8	798.2	828.9	835.0	823.8
50°	742.3	744.9	775.8	768.3	761.0
52.5°	681.3	692.1	709.5	708.0	699.4
55°	631.1	626.9	643.4	639.0	638.8
57.5°	570.9	578.2	591.7	584.8	573.6
60°	514.5	514.6	519.6	511.7	510.2
62.5°	451.6	453.8	454.9	445.2	461.0
65°	387.7	382.6	397.6	382.4	385.0
67.5°	328.9	331.5	330.0	320.5	324.2
70°	269.2	272.5	270.1	259.3	262.6
72.5°	214.6	210.6	213.2	199.6	205.9
75°	161.4	158.1	161.0	149.6	154.8
77.5°	109.9	112.5	110.6	104.6	108.1
80°	72.5	70.5	70.5	67.0	67.8
82.5°	42.3	40.3	39.7	38.6	40.3
85°	19.8	19.2	19.6	19.0	18.3
87.5°	7.1	7.3	7.3	7.0	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)