

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: P589384

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589384
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-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

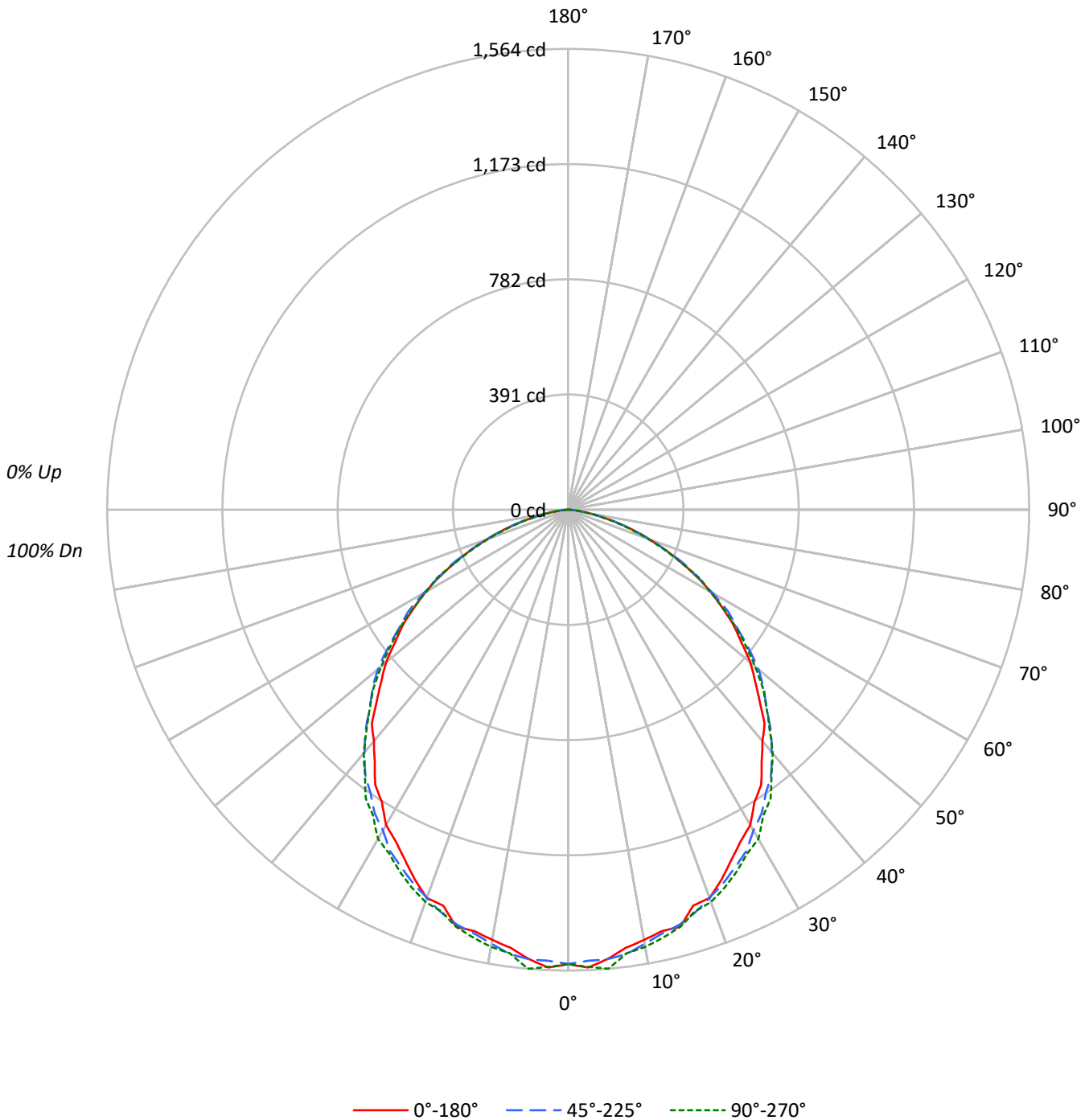
Lumens per Lamp: N/A
Luminaire Lumens: 3886.0 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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					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°	4149	4149	4149
5°	4135	4137	4224
10°	4051	4087	4116
15°	4084	4062	4084
20°	4015	4015	4057
25°	3891	3976	4020
30°	3838	3905	4009
35°	3747	3846	3932
40°	3602	3775	3792
45°	3493	3617	3622
50°	3378	3530	3463
55°	3218	3281	3258
60°	3010	3040	2985
65°	2684	2752	2665
70°	2302	2310	2246
75°	1824	1820	1749
80°	1221	1187	1142
85°	664	658	614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	3.7
10°-20°	411.0	10.6
20°-30°	615.8	15.8
30°-40°	729.9	18.8
40°-50°	731.2	18.8
50°-60°	620.7	16.0
60°-70°	418.5	10.8
70°-80°	183.9	4.7
80°-90°	29.9	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°	1171.9	30.2
0°-40°	1901.8	48.9
0°-60°	3253.8	83.7
0°-90°	3886.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3886.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1542	1542	1542	1542	1542	
5°	1531	1527	1532	1527	1564	144
15°	1466	1449	1458	1465	1466	408
25°	1310	1318	1339	1357	1354	606
35°	1141	1144	1171	1198	1197	708
45°	918	935	950	975	952	710
55°	686	681	699	695	694	610
65°	422	416	432	416	418	419
75°	175	172	175	163	168	188
85°	22	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°	1541.9	1541.9	1541.9	1541.9	1541.9
2.5°	1555.2	1543.5	1532.5	1545.3	1553.0
5°	1530.9	1527.3	1531.5	1526.9	1563.8
7.5°	1499.5	1513.2	1521.2	1516.2	1518.4
10°	1482.7	1478.0	1495.7	1508.0	1506.2
12.5°	1464.8	1472.0	1473.0	1486.3	1487.5
15°	1465.8	1448.9	1457.9	1465.4	1466.0
17.5°	1408.9	1427.2	1433.4	1450.7	1429.2
20°	1401.9	1388.6	1401.9	1419.6	1416.8
22.5°	1359.1	1344.2	1372.8	1388.6	1387.6
25°	1310.5	1317.7	1339.2	1356.7	1353.9
27.5°	1267.9	1276.3	1307.0	1331.0	1315.5
30°	1235.1	1230.9	1256.8	1278.3	1290.2
32.5°	1176.4	1191.5	1221.7	1243.0	1231.7
35°	1140.7	1144.1	1170.6	1197.7	1196.9
37.5°	1078.4	1094.1	1131.4	1138.9	1132.0
40°	1025.3	1041.0	1074.6	1082.8	1079.4
42.5°	986.0	988.8	1017.7	1027.0	1012.1
45°	917.8	934.9	950.4	974.9	951.8
47.5°	859.6	867.6	901.0	907.6	895.5
50°	806.9	809.7	843.3	835.1	827.2
52.5°	740.6	752.3	771.2	769.6	760.3
55°	686.0	681.4	699.4	694.6	694.4
57.5°	620.5	628.5	643.2	635.7	623.5
60°	559.2	559.4	564.8	556.2	554.6
62.5°	490.9	493.3	494.5	484.0	501.1
65°	421.5	415.9	432.2	415.7	418.5
67.5°	357.5	360.3	358.7	348.4	352.4
70°	292.6	296.2	293.6	281.9	285.5
72.5°	233.3	228.9	231.7	217.0	223.8
75°	175.4	171.8	175.0	162.6	168.2
77.5°	119.4	122.2	120.2	113.7	117.5
80°	78.8	76.6	76.6	72.9	73.7
82.5°	46.0	43.8	43.2	42.0	43.8
85°	21.5	20.9	21.3	20.7	19.9
87.5°	7.8	8.0	8.0	7.6	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)