

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: P589449

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589449
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

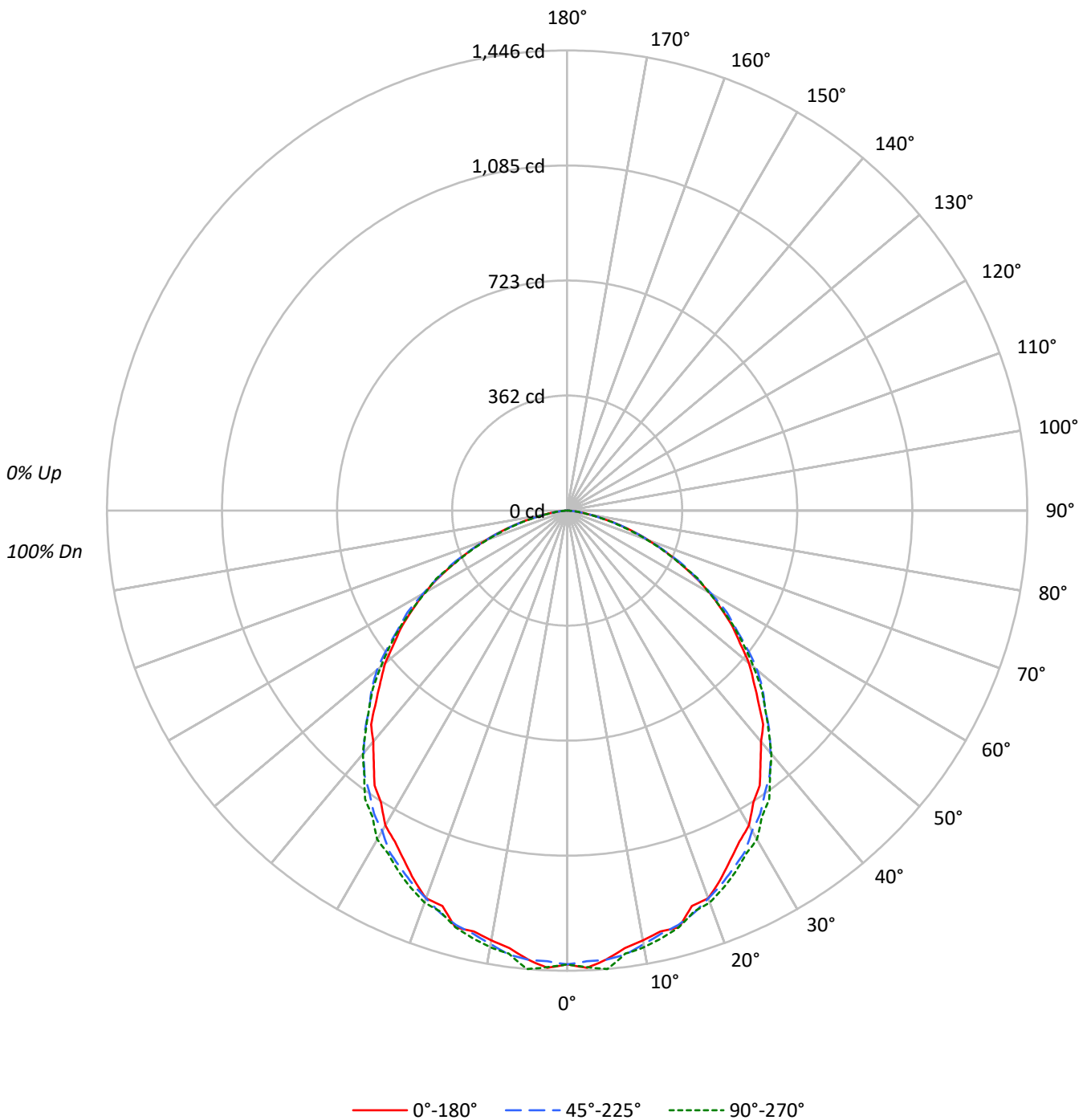
Lumens per Lamp: N/A
Luminaire Lumens: 3594.0 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P589449

CATALOG NUMBER: FMR-24-2-LD4-3LO-50-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°	3837	3837	3837
5°	3825	3826	3907
10°	3747	3780	3807
15°	3777	3756	3777
20°	3713	3713	3753
25°	3599	3678	3718
30°	3549	3612	3708
35°	3466	3556	3636
40°	3331	3491	3507
45°	3230	3345	3350
50°	3124	3265	3203
55°	2977	3035	3013
60°	2784	2811	2761
65°	2482	2545	2464
70°	2130	2137	2077
75°	1686	1682	1618
80°	1130	1099	1055
85°	614	608	568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.1	3.7
10°-20°	380.2	10.6
20°-30°	569.6	15.8
30°-40°	675.0	18.8
40°-50°	676.3	18.8
50°-60°	574.1	16.0
60°-70°	387.0	10.8
70°-80°	170.1	4.7
80°-90°	27.6	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°	1083.9	30.2
0°-40°	1758.9	48.9
0°-60°	3009.3	83.7
0°-90°	3594.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3594.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1426	1426	1426	1426	1426	
5°	1416	1413	1416	1412	1446	133
15°	1356	1340	1348	1355	1356	378
25°	1212	1219	1239	1255	1252	560
35°	1055	1058	1083	1108	1107	655
45°	849	865	879	902	880	657
55°	634	630	647	642	642	564
65°	390	385	400	384	387	388
75°	162	159	162	150	156	174
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°	1426.0	1426.0	1426.0	1426.0	1426.0
2.5°	1438.3	1427.5	1417.4	1429.1	1436.3
5°	1415.9	1412.6	1416.4	1412.2	1446.3
7.5°	1386.8	1399.5	1406.9	1402.3	1404.3
10°	1371.3	1366.9	1383.3	1394.7	1393.1
12.5°	1354.8	1361.4	1362.3	1374.6	1375.7
15°	1355.7	1340.0	1348.3	1355.3	1355.9
17.5°	1303.0	1320.0	1325.7	1341.7	1321.8
20°	1296.6	1284.2	1296.6	1313.0	1310.4
22.5°	1257.0	1243.2	1269.7	1284.2	1283.3
25°	1212.1	1218.7	1238.6	1254.8	1252.2
27.5°	1172.7	1180.4	1208.7	1231.0	1216.7
30°	1142.3	1138.4	1162.3	1182.2	1193.3
32.5°	1088.0	1102.0	1129.9	1149.6	1139.1
35°	1055.0	1058.1	1082.6	1107.7	1106.9
37.5°	997.4	1011.9	1046.4	1053.3	1046.9
40°	948.2	962.8	993.9	1001.4	998.3
42.5°	911.9	914.5	941.2	949.9	936.1
45°	848.8	864.6	879.0	901.6	880.3
47.5°	795.0	802.4	833.3	839.4	828.2
50°	746.2	748.8	779.9	772.4	765.0
52.5°	684.9	695.8	713.3	711.8	703.2
55°	634.5	630.2	646.8	642.4	642.2
57.5°	573.9	581.3	594.9	587.9	576.7
60°	517.2	517.4	522.3	514.4	513.0
62.5°	454.0	456.2	457.4	447.6	463.4
65°	389.8	384.6	399.7	384.4	387.0
67.5°	330.7	333.3	331.8	322.2	325.9
70°	270.7	274.0	271.6	260.7	264.0
72.5°	215.8	211.7	214.3	200.7	207.0
75°	162.2	158.9	161.8	150.4	155.6
77.5°	110.5	113.0	111.2	105.1	108.6
80°	72.9	70.9	70.9	67.4	68.1
82.5°	42.5	40.5	40.0	38.8	40.5
85°	19.9	19.3	19.7	19.1	18.4
87.5°	7.2	7.4	7.4	7.0	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)