

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: P589208

Luminaire Tested: **FMR-24-2-LD4-2STD-40-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589208
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-40-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

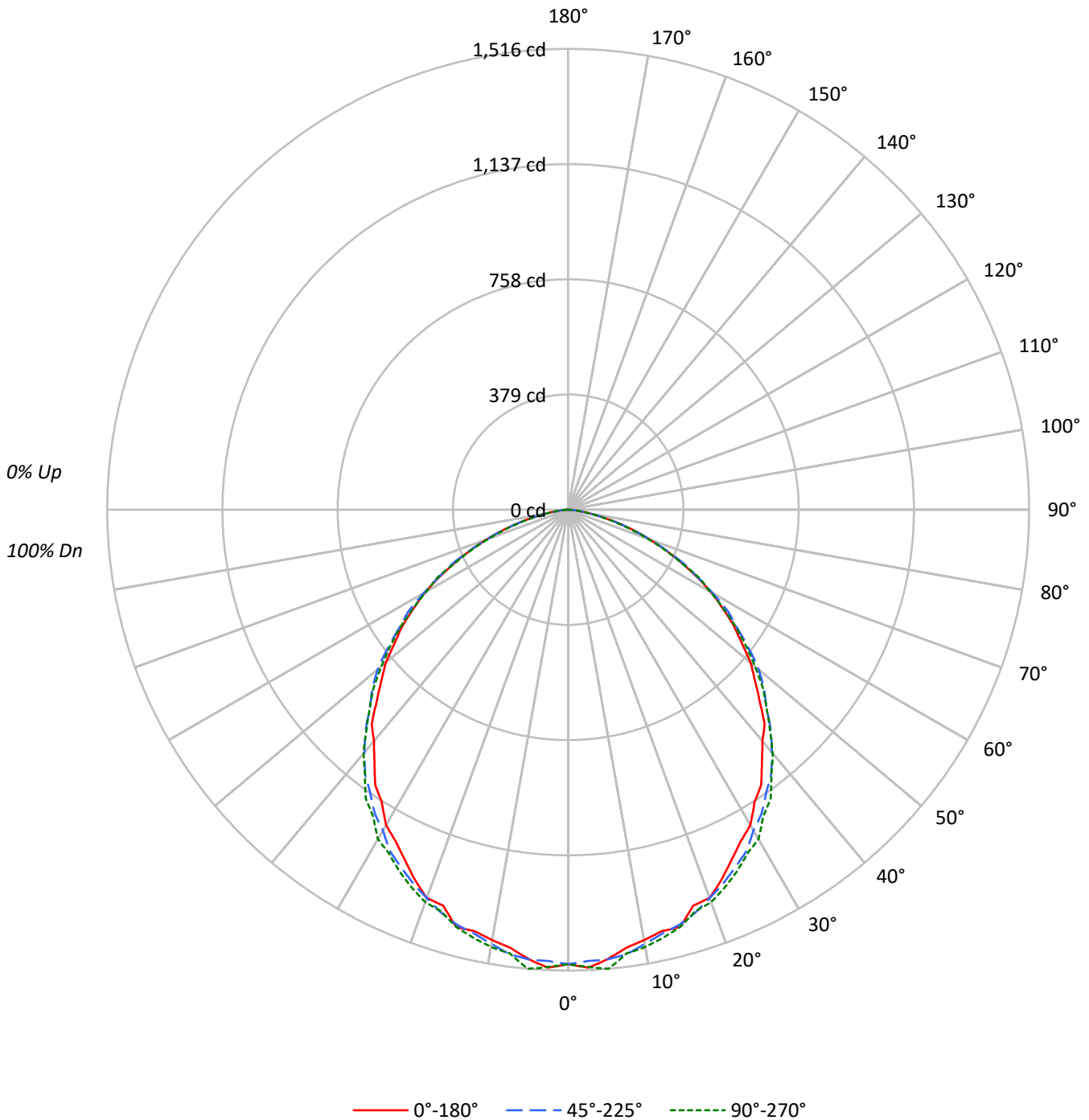
Lumens per Lamp: N/A
Luminaire Lumens: 3768.0 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589208

CATALOG NUMBER: FMR-24-2-LD4-2STD-40-UNV-80-87-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°	4023	4023	4023
5°	4010	4011	4096
10°	3929	3963	3991
15°	3960	3938	3960
20°	3893	3893	3934
25°	3773	3855	3898
30°	3721	3787	3888
35°	3634	3729	3812
40°	3492	3660	3677
45°	3387	3507	3512
50°	3275	3423	3358
55°	3121	3181	3159
60°	2918	2947	2894
65°	2602	2669	2584
70°	2233	2240	2178
75°	1769	1764	1696
80°	1184	1151	1106
85°	642	639	596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.6	3.7
10°-20°	398.6	10.6
20°-30°	597.1	15.8
30°-40°	707.7	18.8
40°-50°	709.0	18.8
50°-60°	601.9	16.0
60°-70°	405.8	10.8
70°-80°	178.3	4.7
80°-90°	29.0	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°	1136.3	30.2
0°-40°	1844.1	48.9
0°-60°	3155.0	83.7
0°-90°	3768.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3768.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1495	1495	1495	1495	1495	
5°	1484	1481	1485	1481	1516	140
15°	1421	1405	1414	1421	1422	396
25°	1271	1278	1298	1316	1313	587
35°	1106	1109	1135	1161	1160	687
45°	890	906	922	945	923	688
55°	665	661	678	674	673	592
65°	409	403	419	403	406	406
75°	170	167	170	158	163	182
85°	21	20	21	20	19	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.0	1495.0	1495.0	1495.0	1495.0
2.5°	1508.0	1496.6	1486.0	1498.3	1505.9
5°	1484.4	1481.0	1485.0	1480.6	1516.3
7.5°	1453.9	1467.3	1475.0	1470.1	1472.3
10°	1437.7	1433.1	1450.3	1462.2	1460.5
12.5°	1420.3	1427.3	1428.3	1441.2	1442.3
15°	1421.3	1404.9	1413.6	1420.9	1421.5
17.5°	1366.1	1383.9	1389.8	1406.6	1385.8
20°	1359.3	1346.4	1359.3	1376.5	1373.8
22.5°	1317.8	1303.4	1331.2	1346.4	1345.4
25°	1270.7	1277.7	1298.5	1315.5	1312.8
27.5°	1229.4	1237.5	1267.3	1290.6	1275.6
30°	1197.6	1193.5	1218.6	1239.5	1251.1
32.5°	1140.6	1155.3	1184.6	1205.3	1194.3
35°	1106.1	1109.4	1135.0	1161.3	1160.5
37.5°	1045.7	1060.9	1097.0	1104.3	1097.6
40°	994.1	1009.4	1042.0	1049.9	1046.6
42.5°	956.1	958.8	986.8	995.9	981.4
45°	889.9	906.5	921.5	945.3	922.9
47.5°	833.5	841.2	873.7	880.0	868.3
50°	782.4	785.1	817.7	809.8	802.1
52.5°	718.1	729.5	747.8	746.3	737.2
55°	665.2	660.8	678.1	673.5	673.3
57.5°	601.7	609.4	623.7	616.4	604.6
60°	542.2	542.4	547.6	539.3	537.8
62.5°	476.0	478.3	479.5	469.3	485.9
65°	408.7	403.2	419.1	403.1	405.8
67.5°	346.7	349.4	347.8	337.8	341.7
70°	283.8	287.2	284.7	273.3	276.8
72.5°	226.2	222.0	224.7	210.4	217.0
75°	170.1	166.6	169.7	157.7	163.1
77.5°	115.8	118.5	116.6	110.2	113.9
80°	76.4	74.3	74.3	70.7	71.4
82.5°	44.6	42.5	41.9	40.7	42.5
85°	20.8	20.3	20.7	20.1	19.3
87.5°	7.5	7.7	7.7	7.3	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)