

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: P589254

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589254
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-50-UNV-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

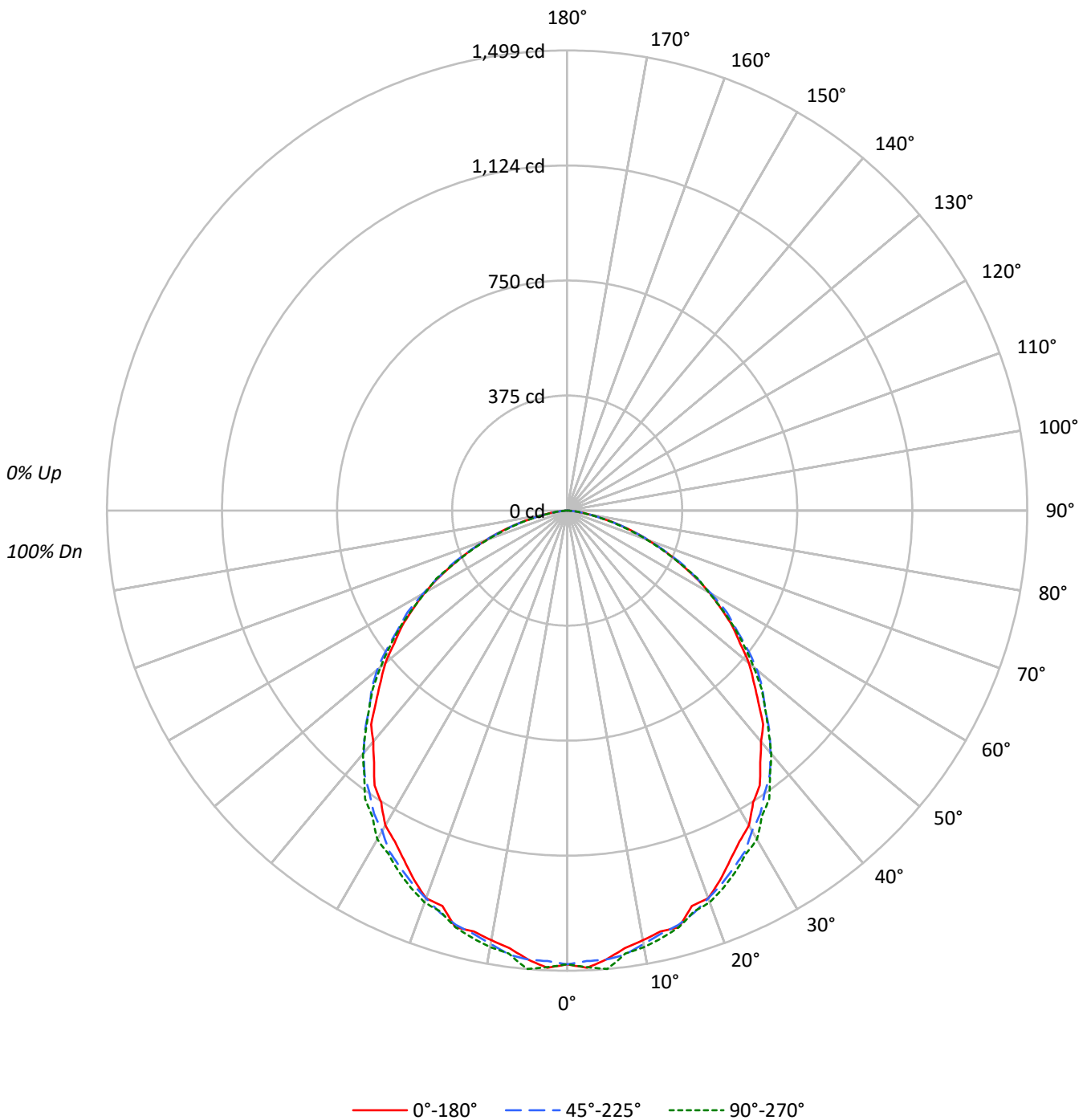
Lumens per Lamp: N/A
Luminaire Lumens: 3725.0 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	3977	3977	3977
5°	3964	3966	4049
10°	3884	3918	3945
15°	3914	3893	3915
20°	3848	3848	3889
25°	3730	3812	3853
30°	3679	3743	3843
35°	3592	3686	3769
40°	3452	3619	3635
45°	3348	3467	3472
50°	3238	3384	3319
55°	3085	3145	3123
60°	2885	2914	2862
65°	2572	2638	2554
70°	2207	2215	2153
75°	1748	1744	1677
80°	1172	1139	1094
85°	636	630	590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.0	3.7
10°-20°	394.0	10.6
20°-30°	590.3	15.8
30°-40°	699.6	18.8
40°-50°	700.9	18.8
50°-60°	595.0	16.0
60°-70°	401.1	10.8
70°-80°	176.3	4.7
80°-90°	28.6	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°	1123.4	30.2
0°-40°	1823.0	48.9
0°-60°	3118.9	83.7
0°-90°	3725.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3725.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1478	1478	1478	1478	1478	
5°	1468	1464	1468	1464	1499	138
15°	1405	1389	1398	1405	1405	391
25°	1256	1263	1284	1300	1298	581
35°	1094	1097	1122	1148	1147	679
45°	880	896	911	934	912	681
55°	658	653	670	666	666	585
65°	404	399	414	398	401	402
75°	168	165	168	156	161	180
85°	21	20	20	20	19	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1478.0	1478.0	1478.0	1478.0	1478.0
2.5°	1490.8	1479.5	1469.0	1481.2	1488.7
5°	1467.5	1464.1	1468.1	1463.7	1499.0
7.5°	1437.3	1450.5	1458.1	1453.4	1455.5
10°	1421.3	1416.7	1433.7	1445.5	1443.8
12.5°	1404.1	1411.0	1412.0	1424.7	1425.9
15°	1405.1	1388.9	1397.5	1404.7	1405.3
17.5°	1350.5	1368.1	1374.0	1390.6	1370.0
20°	1343.8	1331.0	1343.8	1360.8	1358.1
22.5°	1302.8	1288.5	1316.0	1331.0	1330.1
25°	1256.2	1263.1	1283.7	1300.5	1297.8
27.5°	1215.4	1223.4	1252.8	1275.9	1261.0
30°	1183.9	1179.9	1204.7	1225.3	1236.8
32.5°	1127.6	1142.1	1171.1	1191.5	1180.7
35°	1093.5	1096.7	1122.1	1148.0	1147.3
37.5°	1033.7	1048.8	1084.5	1091.7	1085.1
40°	982.8	997.9	1030.1	1037.9	1034.7
42.5°	945.2	947.9	975.5	984.5	970.2
45°	879.7	896.1	911.0	934.5	912.4
47.5°	824.0	831.6	863.7	870.0	858.4
50°	773.4	776.1	808.4	800.5	792.9
52.5°	709.9	721.2	739.3	737.8	728.8
55°	657.6	653.2	670.4	665.8	665.6
57.5°	594.8	602.5	616.6	609.3	597.7
60°	536.0	536.2	541.4	533.2	531.7
62.5°	470.6	472.9	474.0	463.9	480.3
65°	404.0	398.6	414.3	398.5	401.1
67.5°	342.7	345.4	343.9	334.0	337.8
70°	280.5	284.0	281.5	270.2	273.7
72.5°	223.7	219.5	222.1	208.0	214.5
75°	168.1	164.7	167.7	155.9	161.3
77.5°	114.5	117.2	115.3	109.0	112.6
80°	75.6	73.5	73.5	69.8	70.6
82.5°	44.1	42.0	41.4	40.3	42.0
85°	20.6	20.0	20.4	19.8	19.1
87.5°	7.4	7.6	7.6	7.3	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)