

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: P589232

Luminaire Tested: **FMR-24-2-LD4-2STD-40-UNV-93-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589232
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-93-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

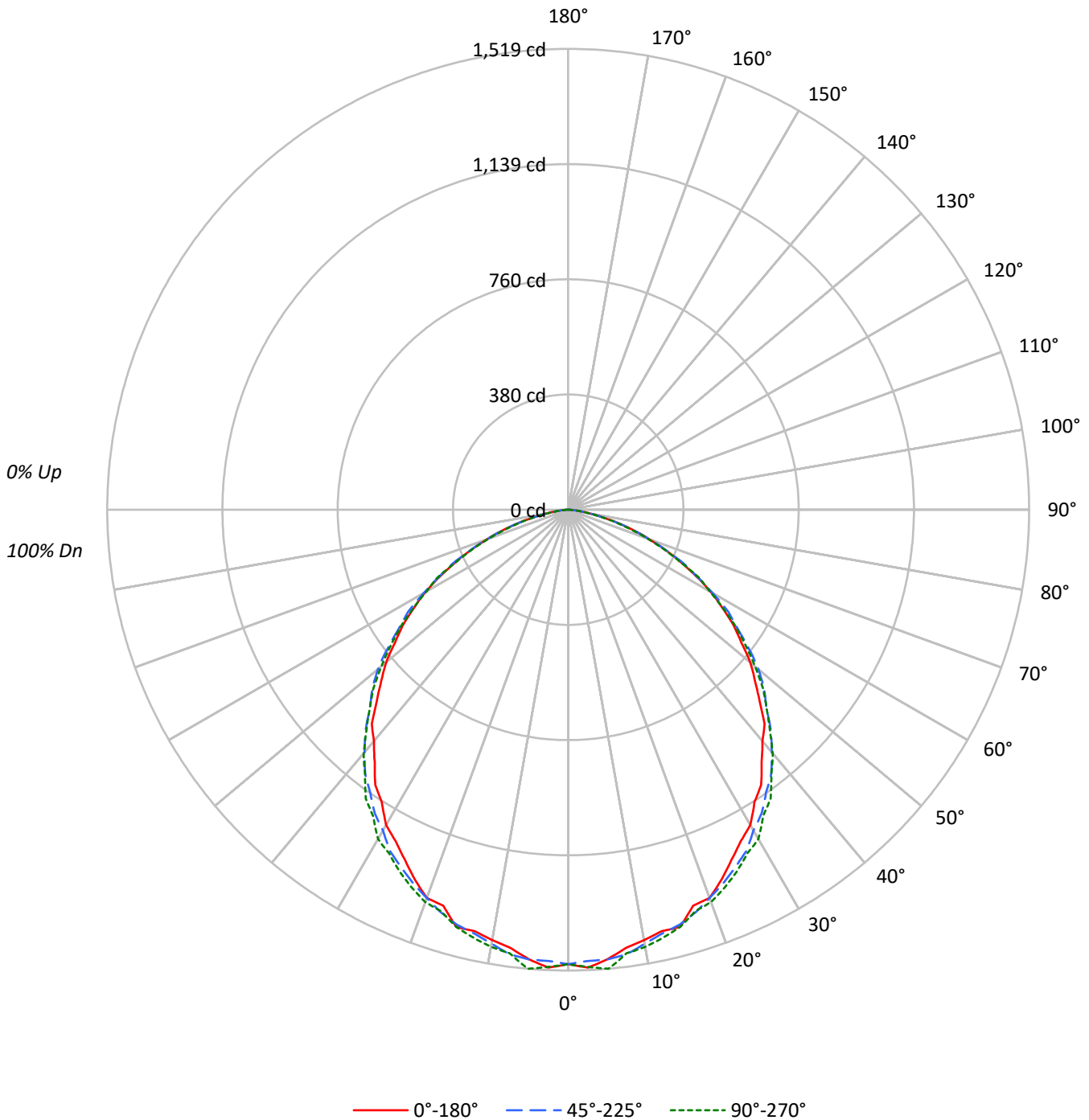
Lumens per Lamp: N/A
Luminaire Lumens: 3775.0 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4031	4031	4031
5°	4017	4019	4103
10°	3936	3970	3998
15°	3967	3945	3967
20°	3900	3900	3942
25°	3780	3863	3905
30°	3728	3794	3895
35°	3640	3735	3820
40°	3499	3667	3684
45°	3393	3514	3519
50°	3281	3430	3364
55°	3126	3187	3165
60°	2923	2953	2900
65°	2607	2674	2588
70°	2237	2245	2182
75°	1772	1768	1699
80°	1187	1155	1110
85°	645	639	596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.9	3.7
10°-20°	399.3	10.6
20°-30°	598.2	15.8
30°-40°	709.0	18.8
40°-50°	710.4	18.8
50°-60°	603.0	16.0
60°-70°	406.5	10.8
70°-80°	178.6	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°	1138.4	30.2
0°-40°	1847.5	48.9
0°-60°	3160.8	83.7
0°-90°	3775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3775.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1498	1498	1498	1498	1498	
5°	1487	1484	1488	1483	1519	140
15°	1424	1408	1416	1424	1424	397
25°	1273	1280	1301	1318	1315	589
35°	1108	1111	1137	1163	1163	688
45°	892	908	923	947	925	690
55°	666	662	679	675	675	593
65°	409	404	420	404	406	407
75°	170	167	170	158	163	183
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°	1497.8	1497.8	1497.8	1497.8	1497.8
2.5°	1510.8	1499.4	1488.7	1501.1	1508.7
5°	1487.2	1483.7	1487.8	1483.3	1519.1
7.5°	1456.6	1470.0	1477.7	1472.9	1475.0
10°	1440.4	1435.7	1453.0	1464.9	1463.2
12.5°	1423.0	1429.9	1430.9	1443.9	1445.0
15°	1423.9	1407.5	1416.2	1423.6	1424.1
17.5°	1368.6	1386.4	1392.4	1409.3	1388.4
20°	1361.9	1348.9	1361.9	1379.1	1376.4
22.5°	1320.3	1305.8	1333.6	1348.9	1347.9
25°	1273.1	1280.1	1301.0	1318.0	1315.3
27.5°	1231.7	1239.8	1269.6	1293.0	1277.9
30°	1199.8	1195.7	1220.9	1241.8	1253.4
32.5°	1142.8	1157.5	1186.8	1207.5	1196.5
35°	1108.1	1111.4	1137.1	1163.4	1162.7
37.5°	1047.6	1062.9	1099.0	1106.4	1099.6
40°	996.0	1011.2	1043.9	1051.9	1048.6
42.5°	957.9	960.6	988.6	997.7	983.2
45°	891.5	908.2	923.3	947.0	924.6
47.5°	835.1	842.8	875.3	881.7	869.9
50°	783.8	786.5	819.2	811.3	803.5
52.5°	719.4	730.8	749.2	747.7	738.6
55°	666.4	662.0	679.4	674.7	674.6
57.5°	602.8	610.5	624.9	617.5	605.7
60°	543.2	543.4	548.7	540.3	538.8
62.5°	476.9	479.2	480.4	470.1	486.8
65°	409.4	404.0	419.9	403.8	406.5
67.5°	347.3	350.0	348.5	338.4	342.3
70°	284.3	287.8	285.3	273.8	277.3
72.5°	226.7	222.4	225.1	210.8	217.4
75°	170.4	166.9	170.0	158.0	163.4
77.5°	116.0	118.7	116.8	110.4	114.1
80°	76.6	74.5	74.5	70.8	71.6
82.5°	44.7	42.5	42.0	40.8	42.5
85°	20.9	20.3	20.7	20.1	19.3
87.5°	7.5	7.7	7.7	7.3	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)