

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: P589175

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589175
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-35-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

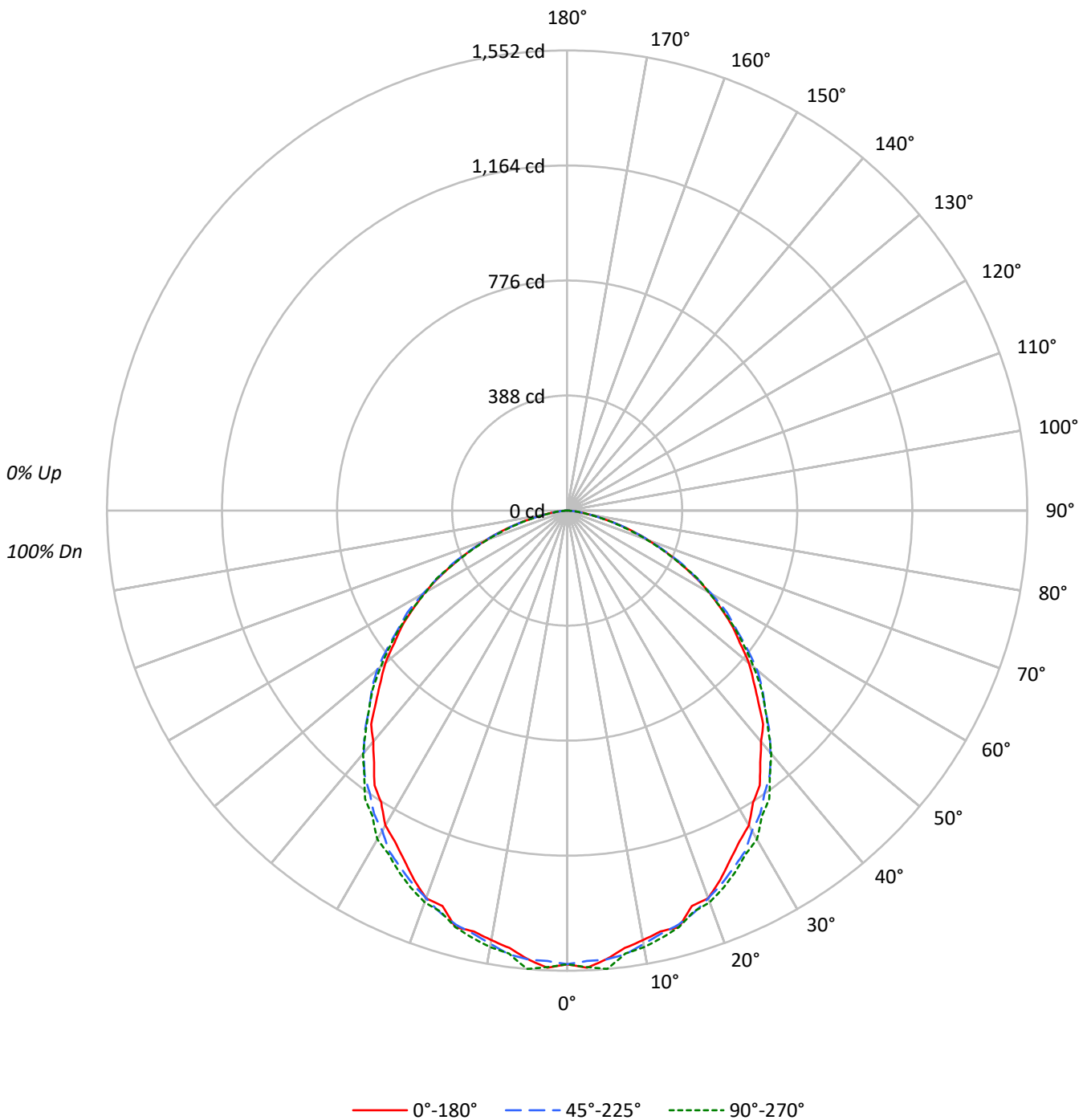
Lumens per Lamp: N/A
Luminaire Lumens: 3856.0 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4117	4117	4117
5°	4103	4105	4192
10°	4020	4055	4084
15°	4052	4030	4053
20°	3984	3984	4026
25°	3861	3946	3989
30°	3808	3875	3978
35°	3718	3816	3901
40°	3574	3746	3763
45°	3466	3589	3594
50°	3352	3503	3436
55°	3194	3256	3232
60°	2986	3016	2962
65°	2663	2731	2644
70°	2285	2293	2229
75°	1809	1805	1735
80°	1212	1179	1133
85°	658	651	611



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.9	3.7
10°-20°	407.9	10.6
20°-30°	611.1	15.8
30°-40°	724.3	18.8
40°-50°	725.6	18.8
50°-60°	615.9	16.0
60°-70°	415.3	10.8
70°-80°	182.5	4.7
80°-90°	29.7	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°	1162.9	30.2
0°-40°	1887.1	48.9
0°-60°	3228.6	83.7
0°-90°	3856.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3856.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1530	1530	1530	1530	1530	
5°	1519	1516	1520	1515	1552	143
15°	1454	1438	1447	1454	1455	405
25°	1300	1308	1329	1346	1344	601
35°	1132	1135	1162	1188	1188	703
45°	911	928	943	967	944	704
55°	681	676	694	689	689	606
65°	418	413	429	412	415	416
75°	174	170	174	161	167	186
85°	21	21	21	20	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1530.0	1530.0	1530.0	1530.0	1530.0
2.5°	1543.2	1531.5	1520.7	1533.3	1541.0
5°	1519.1	1515.5	1519.7	1515.1	1551.7
7.5°	1487.9	1501.5	1509.4	1504.5	1506.7
10°	1471.3	1466.6	1484.1	1496.4	1494.6
12.5°	1453.5	1460.6	1461.6	1474.8	1476.0
15°	1454.5	1437.7	1446.6	1454.1	1454.7
17.5°	1398.0	1416.2	1422.3	1439.5	1418.2
20°	1391.1	1377.9	1391.1	1408.7	1405.9
22.5°	1348.6	1333.8	1362.3	1377.9	1376.9
25°	1300.4	1307.5	1328.9	1346.2	1343.5
27.5°	1258.1	1266.4	1296.9	1320.8	1305.4
30°	1225.6	1221.4	1247.1	1268.4	1280.3
32.5°	1167.3	1182.3	1212.3	1233.5	1222.2
35°	1131.9	1135.3	1161.5	1188.4	1187.6
37.5°	1070.1	1085.7	1122.6	1130.1	1123.2
40°	1017.3	1032.9	1066.3	1074.4	1071.1
42.5°	978.4	981.2	1009.8	1019.1	1004.3
45°	910.7	927.7	943.1	967.4	944.4
47.5°	853.0	860.9	894.1	900.6	888.5
50°	800.6	803.4	836.8	828.7	820.8
52.5°	734.9	746.5	765.3	763.7	754.4
55°	680.7	676.2	694.0	689.2	689.0
57.5°	615.7	623.6	638.3	630.8	618.7
60°	554.9	555.1	560.4	551.9	550.4
62.5°	487.1	489.5	490.7	480.2	497.2
65°	418.2	412.7	428.9	412.5	415.2
67.5°	354.8	357.6	356.0	345.7	349.6
70°	290.4	293.9	291.4	279.7	283.3
72.5°	231.5	227.2	229.9	215.3	222.0
75°	174.0	170.5	173.6	161.4	166.9
77.5°	118.5	121.3	119.3	112.8	116.5
80°	78.2	76.1	76.1	72.3	73.1
82.5°	45.6	43.5	42.9	41.7	43.5
85°	21.3	20.7	21.1	20.5	19.8
87.5°	7.7	7.9	7.9	7.5	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)