

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: P589177

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589177
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-80-88-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

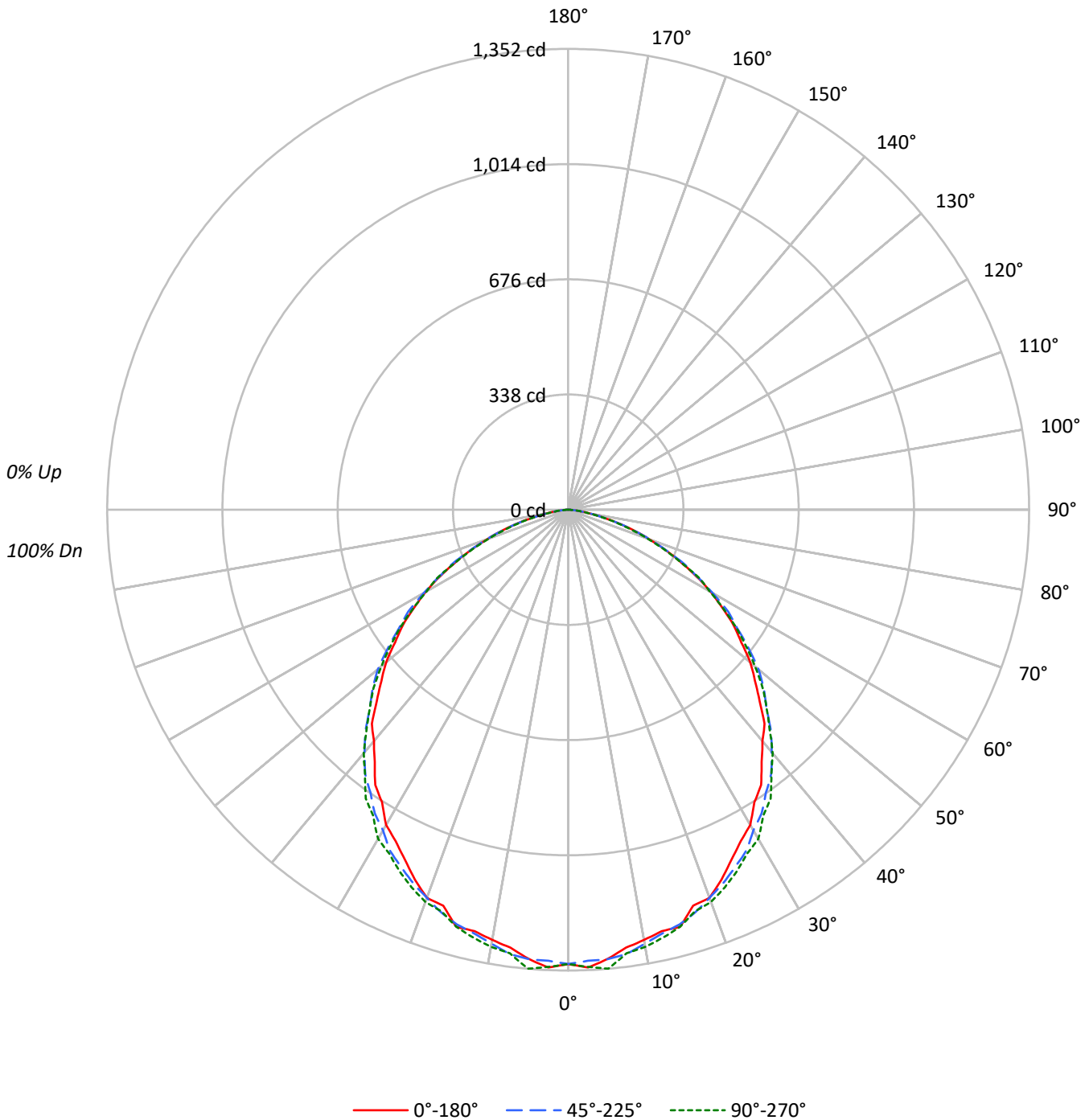
Lumens per Lamp: N/A
Luminaire Lumens: 3359.0 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3587	3587	3587
5°	3575	3576	3651
10°	3502	3533	3558
15°	3530	3511	3530
20°	3470	3470	3507
25°	3363	3437	3475
30°	3317	3375	3466
35°	3239	3324	3399
40°	3113	3263	3277
45°	3019	3126	3131
50°	2920	3051	2993
55°	2782	2836	2816
60°	2602	2627	2580
65°	2320	2379	2303
70°	1991	1997	1942
75°	1576	1573	1512
80°	1055	1027	987
85°	574	568	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.4	3.7
10°-20°	355.3	10.6
20°-30°	532.3	15.8
30°-40°	630.9	18.8
40°-50°	632.1	18.8
50°-60°	536.5	16.0
60°-70°	361.7	10.8
70°-80°	159.0	4.7
80°-90°	25.8	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°	1013.0	30.2
0°-40°	1643.9	48.9
0°-60°	2812.5	83.7
0°-90°	3359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1333	1333	1333	1333	1333	
5°	1323	1320	1324	1320	1352	125
15°	1267	1252	1260	1267	1267	353
25°	1133	1139	1158	1173	1170	524
35°	986	989	1012	1035	1035	612
45°	793	808	822	843	823	614
55°	593	589	604	600	600	527
65°	364	360	374	359	362	362
75°	152	148	151	141	145	162
85°	19	18	18	18	17	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1332.8	1332.8	1332.8	1332.8	1332.8
2.5°	1344.3	1334.1	1324.7	1335.7	1342.4
5°	1323.3	1320.2	1323.8	1319.9	1351.7
7.5°	1296.1	1308.0	1314.9	1310.6	1312.5
10°	1281.7	1277.5	1292.8	1303.5	1302.0
12.5°	1266.2	1272.4	1273.2	1284.8	1285.8
15°	1267.0	1252.4	1260.1	1266.7	1267.2
17.5°	1217.8	1233.6	1239.0	1254.0	1235.4
20°	1211.8	1200.3	1211.8	1227.1	1224.7
22.5°	1174.8	1161.9	1186.7	1200.3	1199.4
25°	1132.8	1139.0	1157.6	1172.7	1170.3
27.5°	1096.0	1103.2	1129.7	1150.5	1137.1
30°	1067.6	1064.0	1086.3	1104.9	1115.3
32.5°	1016.8	1029.9	1056.1	1074.5	1064.7
35°	986.0	988.9	1011.8	1035.2	1034.6
37.5°	932.2	945.8	977.9	984.5	978.5
40°	886.2	899.8	928.9	935.9	933.0
42.5°	852.3	854.7	879.7	887.8	874.9
45°	793.3	808.1	821.5	842.7	822.7
47.5°	743.0	749.9	778.8	784.5	774.0
50°	697.4	699.9	728.9	721.9	715.0
52.5°	640.1	650.3	666.6	665.3	657.2
55°	593.0	589.0	604.5	600.4	600.2
57.5°	536.4	543.3	556.0	549.5	539.0
60°	483.4	483.5	488.2	480.8	479.4
62.5°	424.4	426.4	427.4	418.3	433.1
65°	364.3	359.5	373.6	359.3	361.7
67.5°	309.1	311.5	310.1	301.1	304.6
70°	253.0	256.1	253.8	243.7	246.8
72.5°	201.7	197.9	200.3	187.6	193.4
75°	151.6	148.5	151.3	140.6	145.4
77.5°	103.2	105.7	103.9	98.3	101.5
80°	68.1	66.3	66.3	63.0	63.7
82.5°	39.8	37.9	37.3	36.3	37.9
85°	18.6	18.1	18.4	17.9	17.2
87.5°	6.7	6.9	6.9	6.5	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)