

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: P589201

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589201
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-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

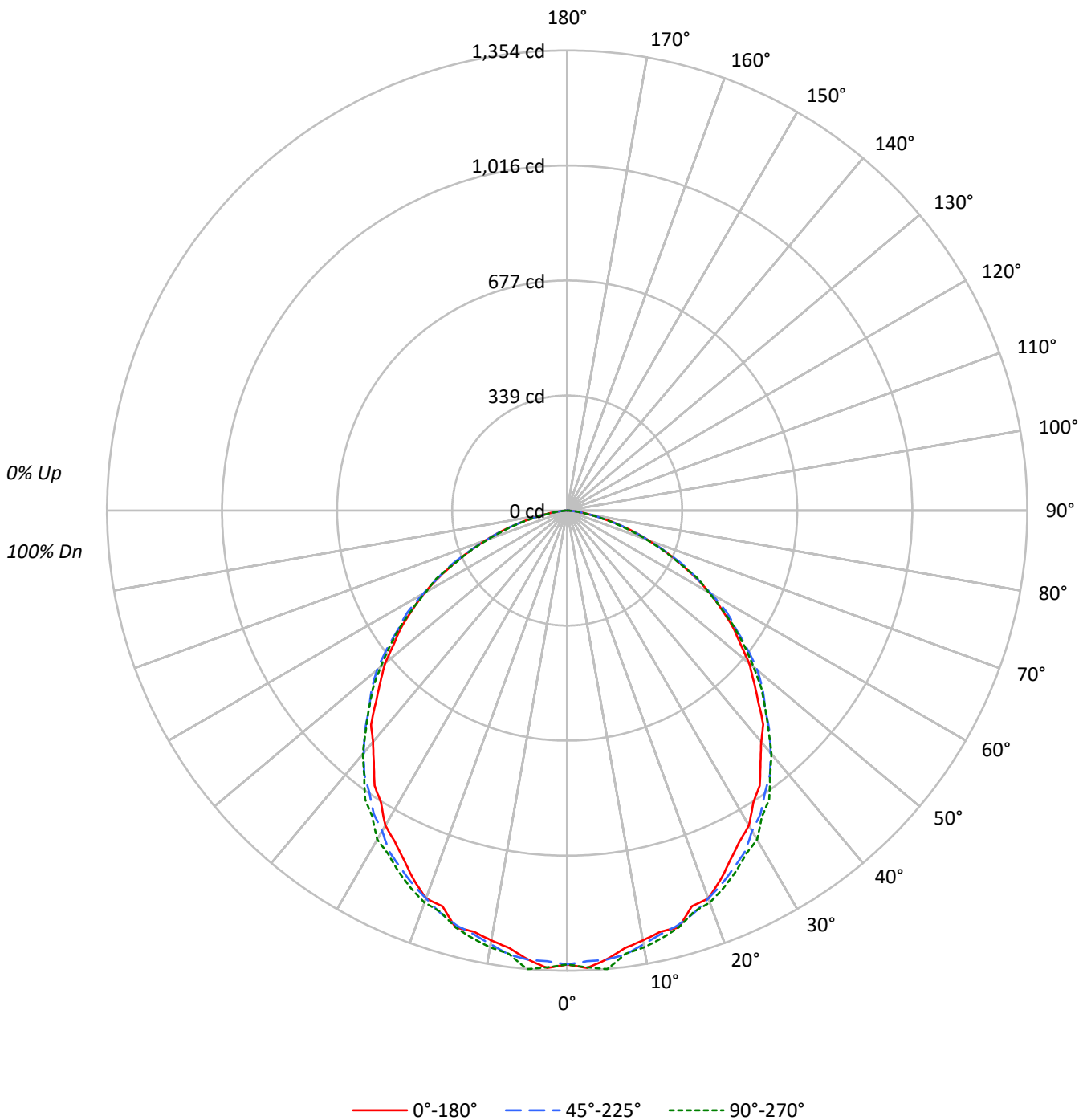
Lumens per Lamp: N/A
Luminaire Lumens: 3366.0 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3594	3594	3594
5°	3582	3583	3659
10°	3509	3540	3565
15°	3537	3518	3538
20°	3477	3477	3515
25°	3371	3444	3482
30°	3324	3383	3473
35°	3246	3331	3406
40°	3120	3270	3284
45°	3025	3133	3137
50°	2926	3058	3000
55°	2788	2842	2822
60°	2607	2633	2585
65°	2325	2384	2308
70°	1995	2001	1946
75°	1579	1576	1515
80°	1058	1029	989
85°	574	571	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.6	3.7
10°-20°	356.0	10.6
20°-30°	533.4	15.8
30°-40°	632.2	18.8
40°-50°	633.4	18.8
50°-60°	537.7	16.0
60°-70°	362.5	10.8
70°-80°	159.3	4.7
80°-90°	25.9	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°	1015.1	30.2
0°-40°	1647.3	48.9
0°-60°	2818.4	83.7
0°-90°	3366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3366.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1336	1336	1336	1336	1336	
5°	1326	1323	1327	1323	1354	125
15°	1270	1255	1263	1269	1270	354
25°	1135	1141	1160	1175	1173	525
35°	988	991	1014	1037	1037	613
45°	795	810	823	844	824	615
55°	594	590	606	602	602	529
65°	365	360	374	360	362	363
75°	152	149	152	141	146	163
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°	1335.5	1335.5	1335.5	1335.5	1335.5
2.5°	1347.1	1336.9	1327.4	1338.5	1345.2
5°	1326.1	1323.0	1326.6	1322.6	1354.5
7.5°	1298.8	1310.7	1317.6	1313.3	1315.2
10°	1284.3	1280.2	1295.5	1306.2	1304.7
12.5°	1268.8	1275.0	1275.9	1287.4	1288.5
15°	1269.7	1255.0	1262.8	1269.3	1269.8
17.5°	1220.4	1236.2	1241.6	1256.6	1237.9
20°	1214.3	1202.8	1214.3	1229.7	1227.3
22.5°	1177.2	1164.3	1189.1	1202.8	1201.9
25°	1135.2	1141.4	1160.0	1175.2	1172.8
27.5°	1098.3	1105.5	1132.1	1152.9	1139.5
30°	1069.8	1066.2	1088.6	1107.2	1117.6
32.5°	1018.9	1032.1	1058.3	1076.7	1066.9
35°	988.1	991.0	1013.9	1037.4	1036.7
37.5°	934.1	947.7	980.0	986.5	980.5
40°	888.1	901.7	930.8	937.9	935.0
42.5°	854.1	856.5	881.5	889.6	876.7
45°	794.9	809.8	823.2	844.4	824.4
47.5°	744.6	751.5	780.5	786.2	775.6
50°	698.9	701.3	730.5	723.4	716.5
52.5°	641.5	651.6	668.0	666.7	658.5
55°	594.2	590.3	605.8	601.6	601.5
57.5°	537.5	544.4	557.2	550.6	540.1
60°	484.4	484.6	489.2	481.8	480.4
62.5°	425.2	427.3	428.3	419.2	434.0
65°	365.1	360.2	374.4	360.1	362.5
67.5°	309.7	312.1	310.7	301.8	305.2
70°	253.5	256.6	254.3	244.2	247.3
72.5°	202.1	198.3	200.7	188.0	193.8
75°	151.9	148.8	151.6	140.9	145.7
77.5°	103.5	105.9	104.2	98.5	101.7
80°	68.3	66.4	66.4	63.1	63.8
82.5°	39.8	37.9	37.4	36.4	37.9
85°	18.6	18.1	18.5	17.9	17.2
87.5°	6.7	6.9	6.9	6.6	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)