

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: P589376

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-81-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589376
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-LD4-3LO-35-UNV-81-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

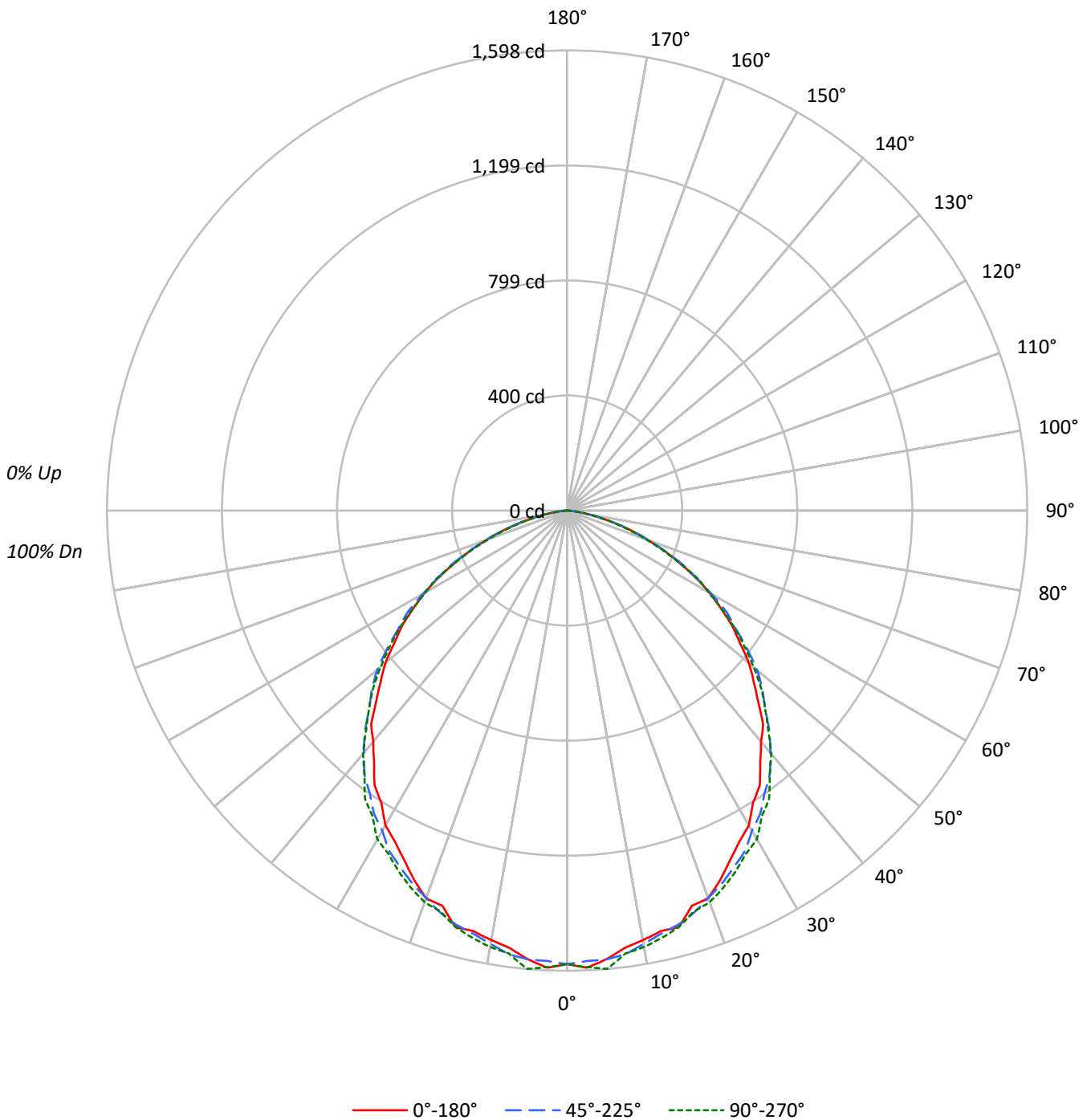
Lumens per Lamp: N/A
Luminaire Lumens: 3970.0 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	4239	4239	4239
5°	4225	4226	4316
10°	4139	4175	4205
15°	4172	4149	4172
20°	4101	4101	4145
25°	3975	4062	4107
30°	3921	3990	4096
35°	3828	3929	4017
40°	3679	3857	3874
45°	3568	3695	3701
50°	3451	3607	3538
55°	3288	3352	3328
60°	3075	3105	3049
65°	2742	2811	2722
70°	2353	2360	2295
75°	1863	1859	1787
80°	1247	1213	1167
85°	679	673	627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.2	3.7
10°-20°	419.9	10.6
20°-30°	629.2	15.8
30°-40°	745.7	18.8
40°-50°	747.0	18.8
50°-60°	634.1	16.0
60°-70°	427.5	10.8
70°-80°	187.9	4.7
80°-90°	30.5	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°	1197.3	30.2
0°-40°	1942.9	48.9
0°-60°	3324.1	83.7
0°-90°	3970.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3970.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1575	1575	1575	1575	1575	
5°	1564	1560	1565	1560	1598	147
15°	1498	1480	1489	1497	1498	417
25°	1339	1346	1368	1386	1383	619
35°	1165	1169	1196	1224	1223	724
45°	938	955	971	996	972	725
55°	701	696	714	710	709	623
65°	431	425	442	425	428	428
75°	179	176	179	166	172	192
85°	22	21	22	21	20	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1575.2	1575.2	1575.2	1575.2	1575.2
2.5°	1588.8	1576.8	1565.6	1578.7	1586.6
5°	1564.0	1560.3	1564.6	1559.9	1597.6
7.5°	1531.9	1545.9	1554.0	1549.0	1551.2
10°	1514.8	1509.9	1528.0	1540.6	1538.8
12.5°	1496.5	1503.8	1504.8	1518.5	1519.7
15°	1497.5	1480.2	1489.4	1497.1	1497.7
17.5°	1439.3	1458.0	1464.4	1482.0	1460.1
20°	1432.2	1418.6	1432.2	1450.3	1447.5
22.5°	1388.5	1373.2	1402.5	1418.6	1417.6
25°	1338.9	1346.2	1368.2	1386.1	1383.2
27.5°	1295.3	1303.9	1335.2	1359.8	1344.0
30°	1261.8	1257.5	1284.0	1305.9	1318.1
32.5°	1201.8	1217.2	1248.2	1269.9	1258.3
35°	1165.4	1168.8	1195.9	1223.5	1222.7
37.5°	1101.7	1117.8	1155.8	1163.5	1156.4
40°	1047.4	1063.5	1097.9	1106.2	1102.7
42.5°	1007.4	1010.2	1039.7	1049.2	1034.0
45°	937.6	955.1	970.9	996.0	972.4
47.5°	878.2	886.3	920.5	927.2	914.8
50°	824.3	827.2	861.5	853.2	845.1
52.5°	756.6	768.6	787.9	786.3	776.7
55°	700.9	696.2	714.5	709.6	709.4
57.5°	633.9	642.1	657.1	649.4	637.0
60°	571.3	571.5	577.0	568.3	566.6
62.5°	501.5	504.0	505.2	494.4	511.9
65°	430.6	424.9	441.5	424.7	427.5
67.5°	365.3	368.1	366.5	355.9	360.0
70°	299.0	302.6	300.0	288.0	291.7
72.5°	238.4	233.9	236.7	221.7	228.6
75°	179.2	175.5	178.8	166.2	171.9
77.5°	122.0	124.9	122.8	116.1	120.0
80°	80.5	78.3	78.3	74.4	75.3
82.5°	47.0	44.7	44.1	42.9	44.7
85°	22.0	21.4	21.8	21.2	20.3
87.5°	7.9	8.1	8.1	7.7	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)