

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: P589266

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589266
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-50-UNV-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

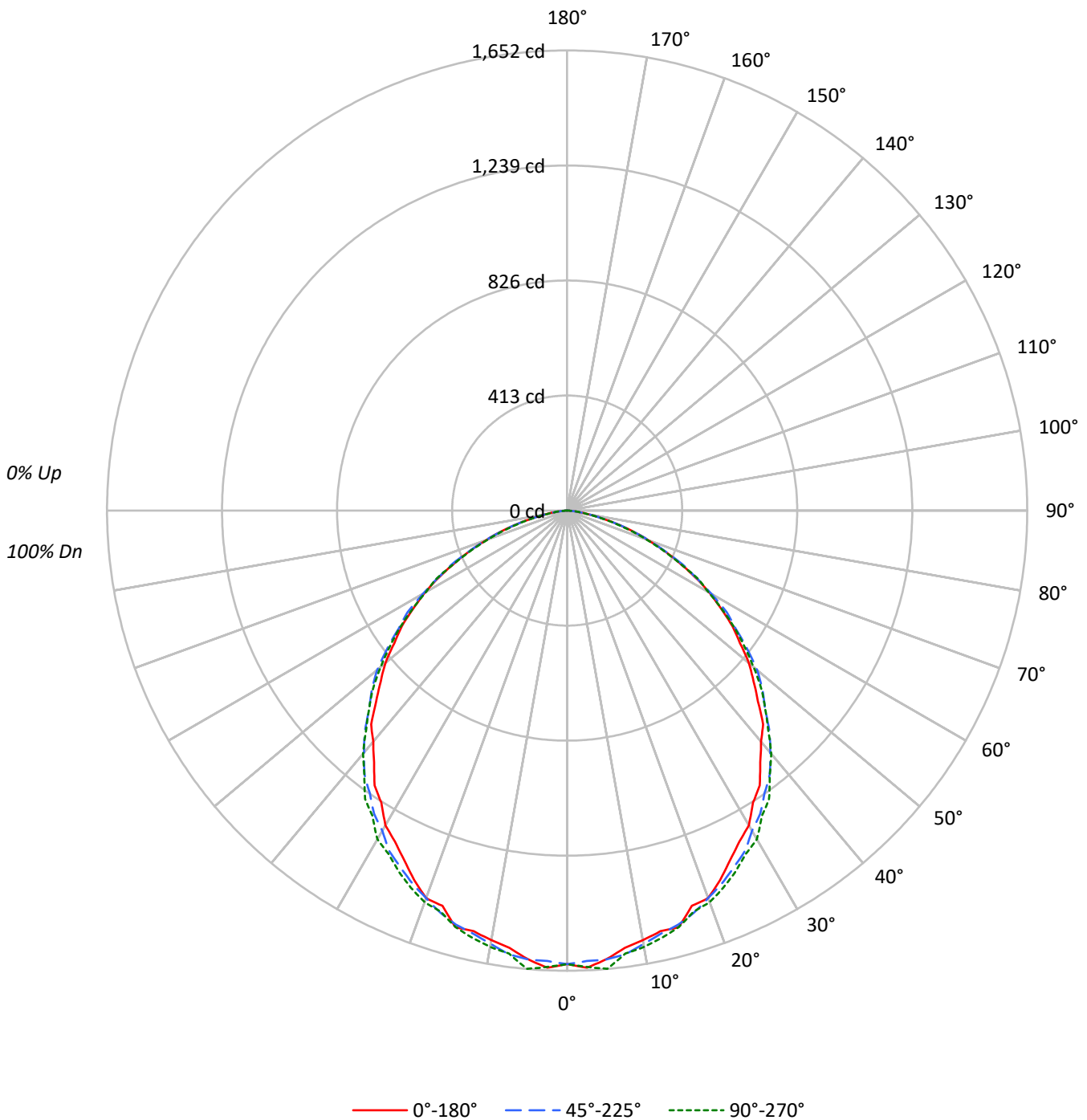
Lumens per Lamp: N/A
Luminaire Lumens: 4104.0 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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°	4382	4382	4382
5°	4367	4369	4461
10°	4279	4316	4347
15°	4313	4289	4313
20°	4240	4240	4285
25°	4110	4199	4246
30°	4053	4124	4234
35°	3958	4061	4152
40°	3804	3987	4005
45°	3688	3820	3825
50°	3567	3728	3657
55°	3399	3465	3440
60°	3179	3210	3152
65°	2834	2906	2814
70°	2432	2440	2372
75°	1926	1921	1848
80°	1291	1254	1206
85°	701	695	648



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	3.7
10°-20°	434.1	10.6
20°-30°	650.4	15.8
30°-40°	770.8	18.8
40°-50°	772.3	18.8
50°-60°	655.5	16.0
60°-70°	441.9	10.8
70°-80°	194.2	4.7
80°-90°	31.6	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°	1237.7	30.2
0°-40°	2008.5	48.9
0°-60°	3436.3	83.7
0°-90°	4104.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4104.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1628	1628	1628	1628	1628	
5°	1617	1613	1617	1613	1652	152
15°	1548	1530	1540	1548	1548	431
25°	1384	1392	1414	1433	1430	640
35°	1205	1208	1236	1265	1264	748
45°	969	987	1004	1030	1005	750
55°	724	720	739	734	733	644
65°	445	439	456	439	442	443
75°	185	181	185	172	178	198
85°	23	22	22	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1628.4	1628.4	1628.4	1628.4	1628.4
2.5°	1642.5	1630.0	1618.5	1631.9	1640.1
5°	1616.8	1613.0	1617.4	1612.6	1651.5
7.5°	1583.6	1598.1	1606.5	1601.2	1603.6
10°	1565.9	1560.9	1579.6	1592.6	1590.7
12.5°	1547.0	1554.6	1555.6	1569.7	1571.0
15°	1548.0	1530.2	1539.6	1547.6	1548.3
17.5°	1487.9	1507.3	1513.8	1532.1	1509.4
20°	1480.6	1466.5	1480.6	1499.3	1496.3
22.5°	1435.4	1419.6	1449.9	1466.5	1465.4
25°	1384.1	1391.6	1414.3	1432.8	1429.9
27.5°	1339.1	1347.9	1380.3	1405.7	1389.3
30°	1304.4	1300.0	1327.3	1350.0	1362.6
32.5°	1242.3	1258.3	1290.3	1312.8	1300.8
35°	1204.7	1208.3	1236.3	1264.8	1264.0
37.5°	1138.9	1155.5	1194.8	1202.8	1195.5
40°	1082.8	1099.4	1134.9	1143.5	1140.0
42.5°	1041.4	1044.3	1074.8	1084.7	1068.9
45°	969.2	987.3	1003.7	1029.6	1005.2
47.5°	907.8	916.3	951.6	958.5	945.7
50°	852.1	855.1	890.6	882.0	873.6
52.5°	782.1	794.5	814.5	812.8	802.9
55°	724.5	719.7	738.6	733.6	733.3
57.5°	655.3	663.7	679.3	671.3	658.5
60°	590.6	590.8	596.5	587.4	585.7
62.5°	518.5	521.0	522.3	511.1	529.2
65°	445.1	439.2	456.4	439.0	441.9
67.5°	377.6	380.5	378.9	367.9	372.1
70°	309.1	312.8	310.1	297.7	301.5
72.5°	246.4	241.8	244.7	229.2	236.3
75°	185.2	181.4	184.8	171.8	177.7
77.5°	126.1	129.1	127.0	120.1	124.0
80°	83.3	80.9	80.9	77.0	77.8
82.5°	48.6	46.3	45.6	44.4	46.3
85°	22.7	22.1	22.5	21.9	21.0
87.5°	8.2	8.4	8.4	8.0	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)