

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: P589387

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-82-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589387
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-82-96-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

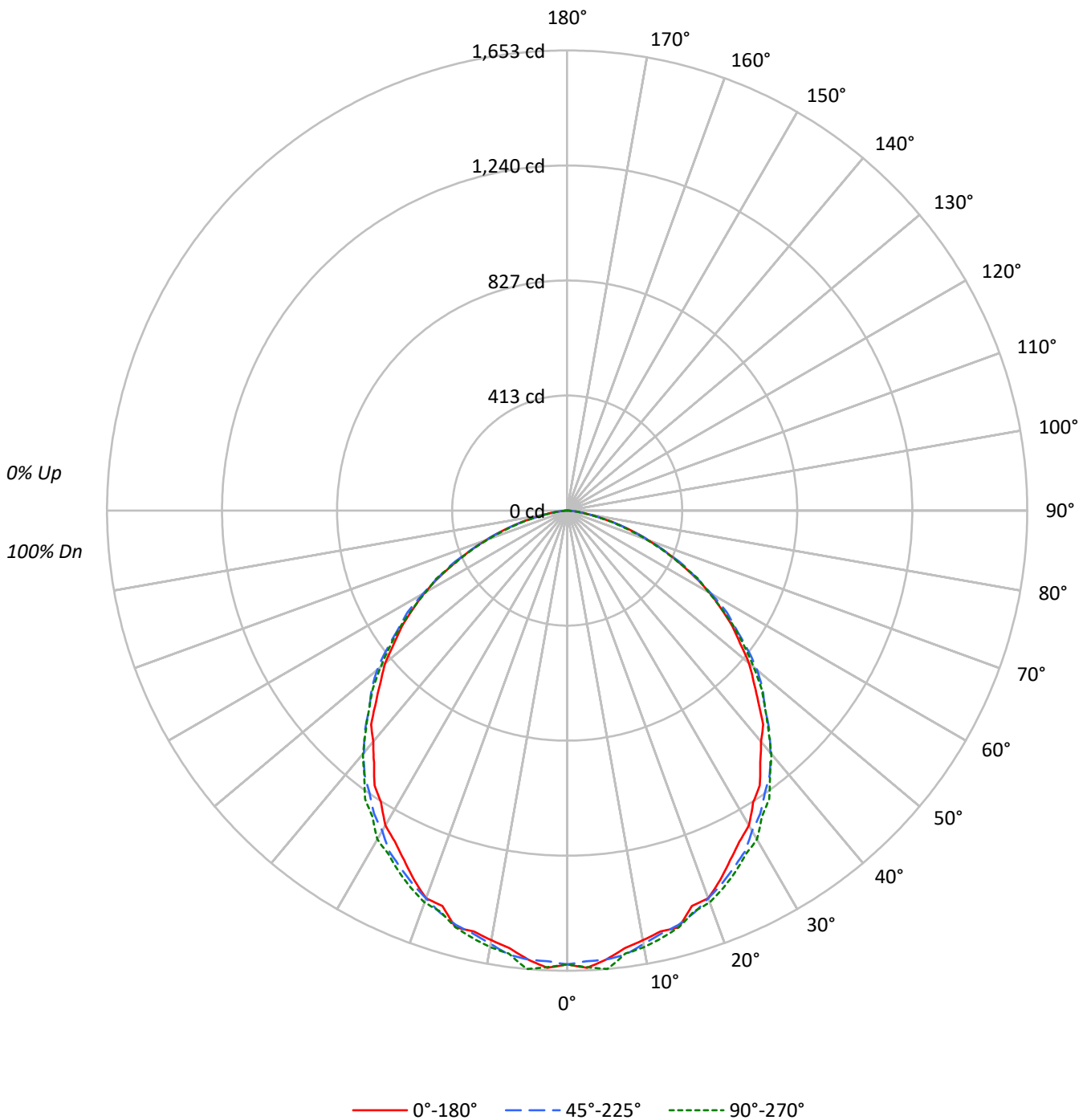
Lumens per Lamp: N/A
Luminaire Lumens: 4108.0 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4386	4386	4386
5°	4372	4373	4465
10°	4283	4320	4351
15°	4317	4293	4318
20°	4244	4244	4289
25°	4113	4203	4250
30°	4057	4128	4238
35°	3961	4065	4156
40°	3807	3991	4008
45°	3692	3824	3829
50°	3571	3732	3661
55°	3402	3468	3444
60°	3182	3214	3155
65°	2837	2909	2817
70°	2434	2442	2375
75°	1928	1923	1849
80°	1291	1255	1207
85°	701	695	648



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.3	3.7
10°-20°	434.5	10.6
20°-30°	651.0	15.8
30°-40°	771.6	18.8
40°-50°	773.0	18.8
50°-60°	656.2	16.0
60°-70°	442.4	10.8
70°-80°	194.4	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°	1238.9	30.2
0°-40°	2010.5	48.9
0°-60°	3439.6	83.7
0°-90°	4108.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4108.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1630	1630	1630	1630	1630	
5°	1618	1615	1619	1614	1653	153
15°	1550	1532	1541	1549	1550	432
25°	1385	1393	1416	1434	1431	640
35°	1206	1210	1238	1266	1265	749
45°	970	988	1005	1031	1006	750
55°	725	720	739	734	734	645
65°	446	440	457	439	442	443
75°	185	182	185	172	178	199
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°	1630.0	1630.0	1630.0	1630.0	1630.0
2.5°	1644.1	1631.6	1620.1	1633.5	1641.7
5°	1618.4	1614.6	1619.0	1614.2	1653.1
7.5°	1585.1	1599.6	1608.1	1602.8	1605.1
10°	1567.4	1562.4	1581.1	1594.2	1592.3
12.5°	1548.5	1556.1	1557.1	1571.2	1572.5
15°	1549.6	1531.7	1541.1	1549.1	1549.8
17.5°	1489.4	1508.7	1515.3	1533.6	1510.8
20°	1482.0	1467.9	1482.0	1500.7	1497.8
22.5°	1436.8	1421.0	1451.3	1467.9	1466.9
25°	1385.4	1393.0	1415.7	1434.2	1431.3
27.5°	1340.4	1349.2	1381.6	1407.1	1390.7
30°	1305.6	1301.2	1328.6	1351.3	1363.9
32.5°	1243.6	1259.6	1291.5	1314.1	1302.1
35°	1205.9	1209.5	1237.5	1266.1	1265.2
37.5°	1140.0	1156.6	1196.0	1204.0	1196.6
40°	1083.8	1100.5	1136.0	1144.6	1141.1
42.5°	1042.4	1045.3	1075.8	1085.7	1069.9
45°	970.2	988.3	1004.7	1030.6	1006.2
47.5°	908.7	917.1	952.5	959.5	946.6
50°	853.0	855.9	891.5	882.8	874.4
52.5°	782.9	795.3	815.3	813.6	803.7
55°	725.2	720.4	739.3	734.3	734.1
57.5°	656.0	664.4	680.0	672.0	659.1
60°	591.2	591.4	597.1	588.0	586.3
62.5°	519.0	521.5	522.8	511.6	529.7
65°	445.5	439.6	456.9	439.4	442.4
67.5°	378.0	380.9	379.2	368.3	372.5
70°	309.4	313.2	310.4	298.0	301.8
72.5°	246.6	242.0	245.0	229.4	236.5
75°	185.4	181.6	185.0	171.9	177.8
77.5°	126.3	129.2	127.1	120.2	124.2
80°	83.3	81.0	81.0	77.0	77.9
82.5°	48.6	46.3	45.7	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)