

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: P588899

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588899
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-LD4-1STD-35-UNV-81-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

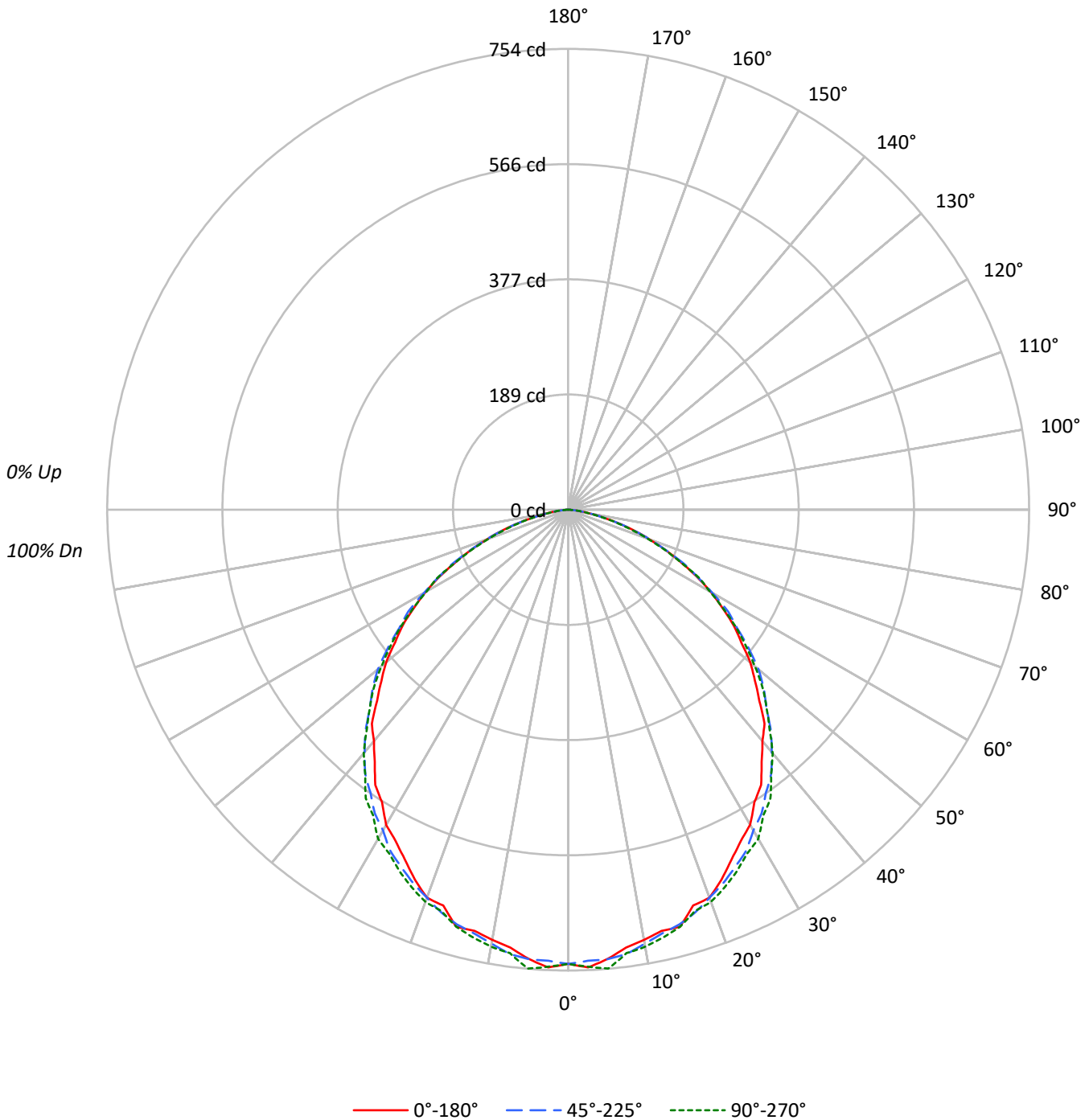
Lumens per Lamp: N/A
Luminaire Lumens: 1873.0 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	2000	2000	2000
5°	1993	1994	2036
10°	1953	1970	1984
15°	1968	1958	1969
20°	1935	1935	1956
25°	1876	1917	1938
30°	1850	1882	1932
35°	1806	1853	1895
40°	1736	1820	1828
45°	1683	1743	1746
50°	1628	1702	1669
55°	1552	1582	1570
60°	1450	1465	1439
65°	1293	1326	1284
70°	1110	1113	1083
75°	879	876	843
80°	589	572	550
85°	321	318	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	3.7
10°-20°	198.1	10.6
20°-30°	296.8	15.8
30°-40°	351.8	18.8
40°-50°	352.5	18.8
50°-60°	299.2	16.0
60°-70°	201.7	10.8
70°-80°	88.6	4.7
80°-90°	14.4	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°	564.9	30.2
0°-40°	916.7	48.9
0°-60°	1568.3	83.7
0°-90°	1873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	743	743	743	743	743	
5°	738	736	738	736	754	70
15°	706	698	703	706	707	197
25°	632	635	646	654	653	292
35°	550	551	564	577	577	341
45°	442	451	458	470	459	342
55°	331	328	337	335	335	294
65°	203	200	208	200	202	202
75°	84	83	84	78	81	91
85°	10	10	10	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.2	743.2	743.2	743.2	743.2
2.5°	749.6	743.9	738.6	744.8	748.5
5°	737.9	736.2	738.2	736.0	753.7
7.5°	722.7	729.3	733.2	730.8	731.8
10°	714.7	712.4	720.9	726.8	726.0
12.5°	706.0	709.5	710.0	716.4	717.0
15°	706.5	698.3	702.7	706.3	706.6
17.5°	679.1	687.9	690.9	699.2	688.8
20°	675.7	669.3	675.7	684.2	682.9
22.5°	655.1	647.9	661.7	669.3	668.8
25°	631.7	635.1	645.5	653.9	652.6
27.5°	611.1	615.2	629.9	641.5	634.1
30°	595.3	593.3	605.8	616.1	621.9
32.5°	567.0	574.3	588.9	599.1	593.7
35°	549.8	551.4	564.2	577.3	576.9
37.5°	519.8	527.4	545.3	548.9	545.6
40°	494.2	501.7	518.0	521.9	520.3
42.5°	475.3	476.6	490.5	495.0	487.8
45°	442.3	450.6	458.1	469.9	458.8
47.5°	414.3	418.2	434.3	437.5	431.6
50°	388.9	390.2	406.5	402.5	398.7
52.5°	356.9	362.6	371.7	371.0	366.4
55°	330.7	328.4	337.1	334.8	334.7
57.5°	299.1	302.9	310.0	306.4	300.5
60°	269.5	269.6	272.2	268.1	267.3
62.5°	236.6	237.8	238.3	233.3	241.5
65°	203.1	200.4	208.3	200.4	201.7
67.5°	172.3	173.7	172.9	167.9	169.8
70°	141.1	142.8	141.5	135.9	137.6
72.5°	112.5	110.3	111.7	104.6	107.9
75°	84.5	82.8	84.3	78.4	81.1
77.5°	57.6	58.9	58.0	54.8	56.6
80°	38.0	36.9	36.9	35.1	35.5
82.5°	22.2	21.1	20.8	20.2	21.1
85°	10.4	10.1	10.3	10.0	9.6
87.5°	3.7	3.8	3.8	3.6	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)