

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: P545239

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-80-84-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P545239
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-12-2-LD4-1HI-35-UNV-80-84-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

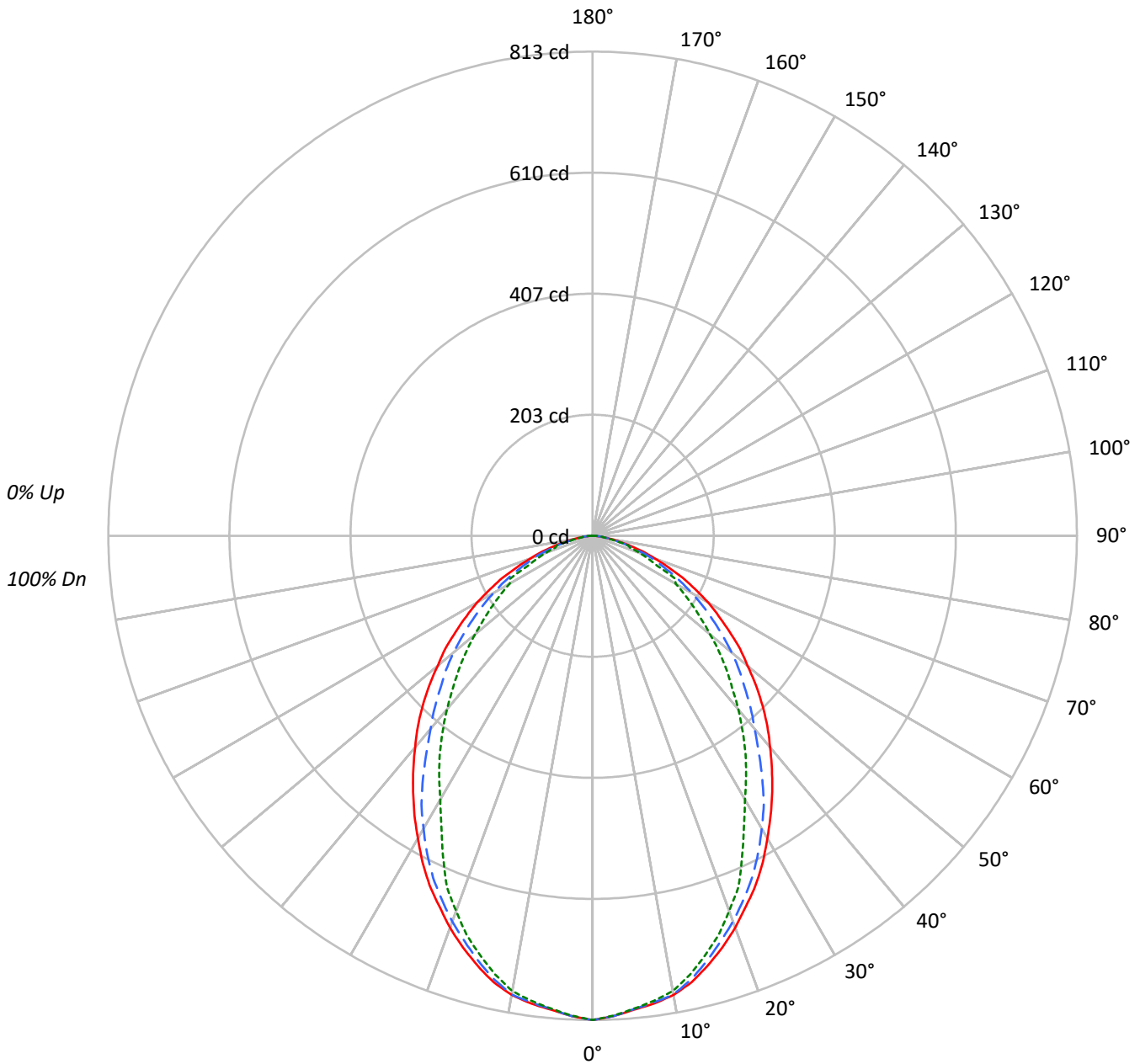
Lumens per Lamp: N/A
Luminaire Lumens: 1596.0 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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				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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4376	4376	4376
5°	4316	4311	4306
10°	4279	4274	4242
15°	4163	4121	4064
20°	4010	3946	3838
25°	3846	3762	3527
30°	3645	3528	3177
35°	3452	3260	2939
40°	3256	2971	2674
45°	3069	2747	2418
50°	2841	2550	2156
55°	2628	2310	1931
60°	2408	2063	1730
65°	2119	1807	1532
70°	1745	1583	1301
75°	1387	1212	1271
80°	933	874	815
85°	580	698	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.7	4.7
10°-20°	207.7	13.0
20°-30°	287.5	18.0
30°-40°	306.6	19.2
40°-50°	279.7	17.5
50°-60°	219.1	13.7
60°-70°	142.8	8.9
70°-80°	63.3	4.0
80°-90°	13.6	0.9
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°	570.9	35.8
0°-40°	877.5	55.0
0°-60°	1376.3	86.2
0°-90°	1596.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1596.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	813	813	813	813	813	
5°	799	798	798	797	797	76
15°	747	747	740	732	729	210
25°	648	644	634	611	594	297
35°	525	522	496	459	447	328
45°	403	395	361	331	318	311
55°	280	272	246	217	206	251
65°	166	157	142	145	120	164
75°	67	62	58	56	61	72
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	813.0	813.0	813.0	813.0	813.0
2.5°	807.3	807.3	807.3	806.4	806.4
5°	798.9	797.9	797.9	797.0	797.0
7.5°	792.3	791.4	790.4	789.5	787.6
10°	782.9	782.9	782.0	777.3	776.3
12.5°	767.9	766.9	763.2	756.6	754.7
15°	747.2	747.2	739.7	732.2	729.3
17.5°	724.6	723.7	714.3	706.8	703.0
20°	700.2	698.3	688.9	676.7	670.1
22.5°	672.9	672.9	661.7	645.7	639.1
25°	647.6	643.8	633.5	610.9	594.0
27.5°	618.4	612.8	601.5	569.6	549.8
30°	586.5	583.7	567.7	526.3	511.3
32.5°	556.4	551.7	534.8	491.5	479.3
35°	525.4	521.6	496.2	458.7	447.4
37.5°	494.4	489.7	457.7	427.6	413.5
40°	463.4	457.7	422.9	395.7	380.6
42.5°	434.2	426.7	392.9	363.7	346.8
45°	403.2	394.7	360.9	330.8	317.7
47.5°	372.2	364.7	333.7	302.6	287.6
50°	339.3	332.7	304.5	273.5	257.5
52.5°	312.0	301.7	274.4	243.4	230.3
55°	280.1	271.6	246.2	217.1	205.8
57.5°	250.9	242.5	219.0	191.7	182.3
60°	223.7	211.5	191.7	168.2	160.7
62.5°	193.6	184.2	167.3	147.6	157.0
65°	166.4	157.0	141.9	144.7	120.3
67.5°	136.3	131.6	118.4	105.3	101.5
70°	110.9	105.3	100.6	86.5	82.7
72.5°	88.3	82.7	76.1	68.6	65.8
75°	66.7	62.0	58.3	55.5	61.1
77.5°	46.1	44.2	41.4	38.5	37.6
80°	30.1	29.1	28.2	27.3	26.3
82.5°	17.9	17.9	17.9	17.9	17.9
85°	9.4	10.3	11.3	12.2	13.2
87.5°	5.6	5.6	6.6	7.5	8.5
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)