

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: P545240

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-80-85-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: P545240
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-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

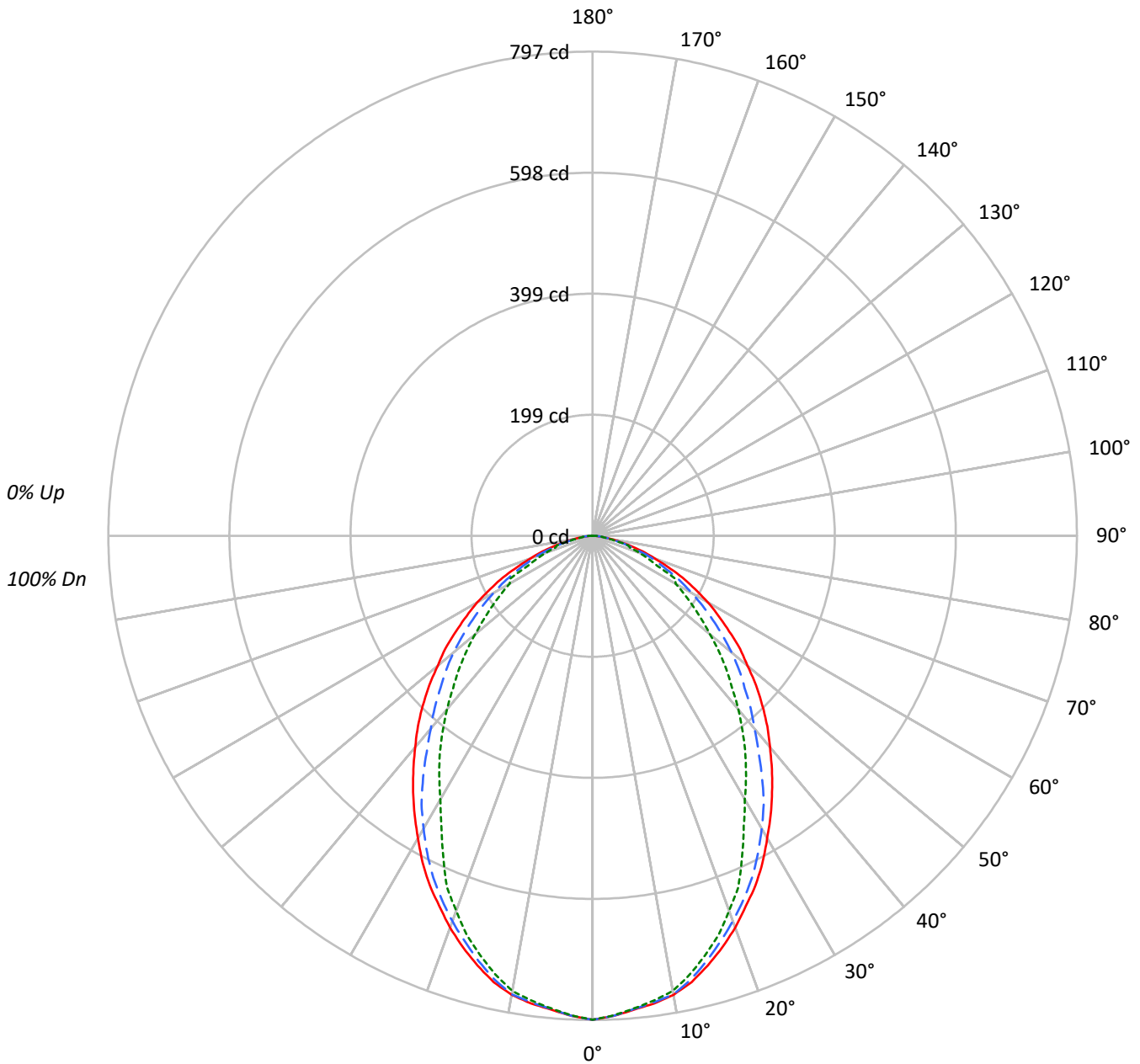
Lumens per Lamp: N/A
Luminaire Lumens: 1564.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4288	4288	4288
5°	4230	4224	4219
10°	4193	4188	4158
15°	4080	4038	3982
20°	3930	3867	3761
25°	3768	3687	3457
30°	3572	3457	3113
35°	3382	3195	2880
40°	3190	2912	2621
45°	3007	2692	2369
50°	2784	2498	2113
55°	2576	2264	1893
60°	2359	2023	1695
65°	2076	1771	1501
70°	1710	1550	1275
75°	1360	1187	1246
80°	914	855	800
85°	568	685	797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	4.7
10°-20°	203.5	13.0
20°-30°	281.8	18.0
30°-40°	300.5	19.2
40°-50°	274.1	17.5
50°-60°	214.7	13.7
60°-70°	139.9	8.9
70°-80°	62.0	4.0
80°-90°	13.3	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°	559.5	35.8
0°-40°	859.9	55.0
0°-60°	1348.7	86.2
0°-90°	1564.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1564.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	783	782	782	781	781	74
15°	732	732	725	718	715	206
25°	635	631	621	599	582	291
35°	515	511	486	450	438	322
45°	395	387	354	324	311	304
55°	274	266	241	213	202	246
65°	163	154	139	142	118	161
75°	65	61	57	54	60	70
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°	796.7	796.7	796.7	796.7	796.7
2.5°	791.2	791.2	791.2	790.2	790.2
5°	782.9	781.9	781.9	781.0	781.0
7.5°	776.4	775.5	774.6	773.7	771.8
10°	767.2	767.2	766.3	761.7	760.8
12.5°	752.5	751.6	747.9	741.4	739.6
15°	732.2	732.2	724.8	717.5	714.7
17.5°	710.1	709.2	700.0	692.6	688.9
20°	686.2	684.3	675.1	663.1	656.7
22.5°	659.4	659.4	648.4	632.7	626.3
25°	634.6	630.9	620.8	598.7	582.1
27.5°	606.0	600.5	589.5	558.1	538.8
30°	574.7	572.0	556.3	515.8	501.0
32.5°	545.2	540.6	524.1	481.7	469.7
35°	514.8	511.2	486.3	449.5	438.4
37.5°	484.5	479.9	448.5	419.1	405.2
40°	454.1	448.5	414.5	387.7	373.0
42.5°	425.5	418.1	385.0	356.4	339.9
45°	395.1	386.8	353.7	324.2	311.3
47.5°	364.7	357.4	327.0	296.6	281.8
50°	332.5	326.0	298.4	268.0	252.4
52.5°	305.8	295.6	268.9	238.5	225.6
55°	274.5	266.2	241.3	212.8	201.7
57.5°	245.9	237.6	214.6	187.9	178.7
60°	219.2	207.2	187.9	164.9	157.5
62.5°	189.7	180.5	163.9	144.6	153.8
65°	163.0	153.8	139.1	141.8	117.9
67.5°	133.5	128.9	116.0	103.2	99.5
70°	108.7	103.2	98.5	84.7	81.0
72.5°	86.6	81.0	74.6	67.2	64.5
75°	65.4	60.8	57.1	54.3	59.9
77.5°	45.1	43.3	40.5	37.8	36.8
80°	29.5	28.6	27.6	26.7	25.8
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.1	11.1	12.0	12.9
87.5°	5.5	5.5	6.4	7.4	8.3
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)