

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: P544973

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-82-96-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: P544973
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-12-1-LD4-2HI-35-UNV-82-96-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

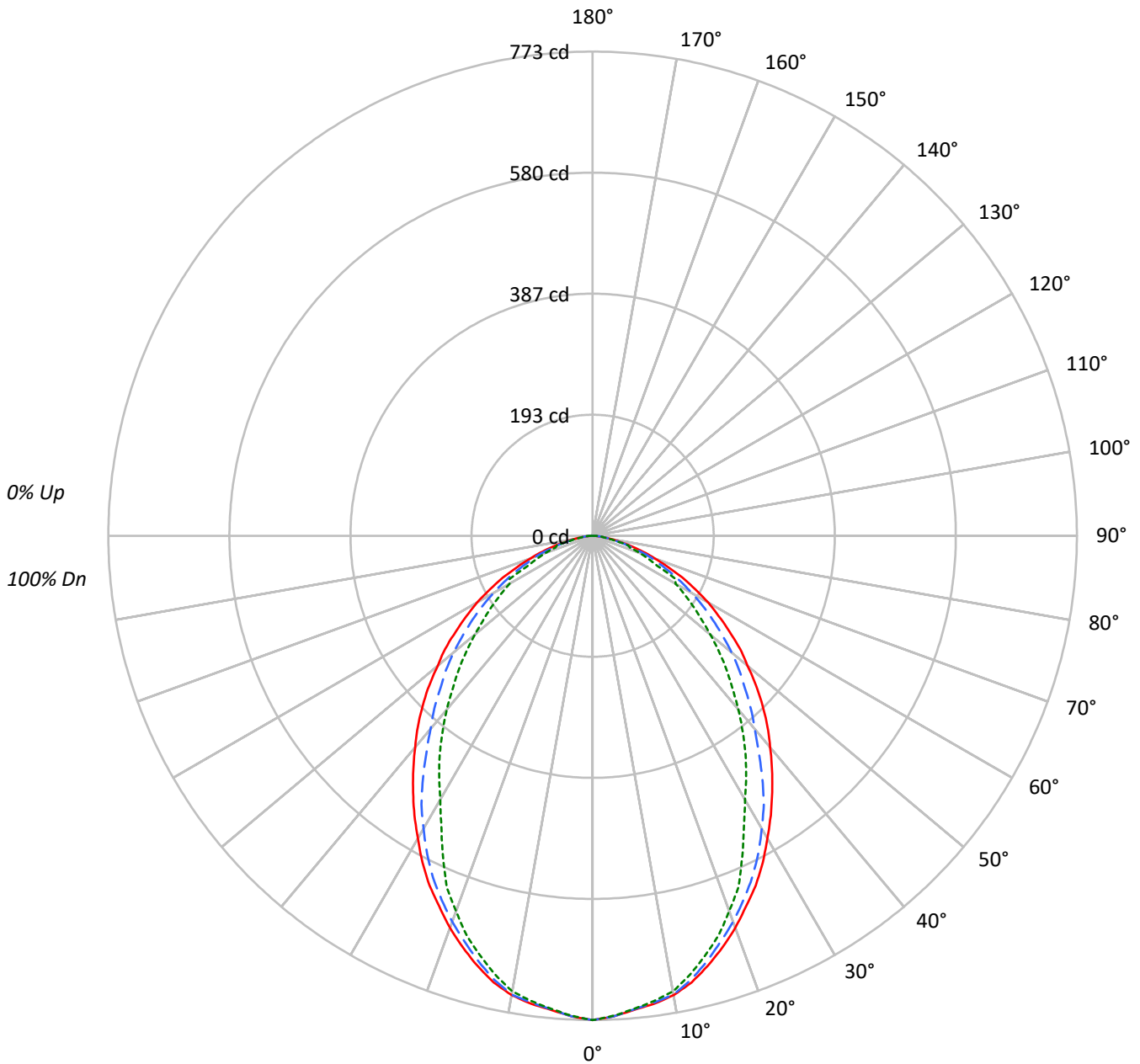
Lumens per Lamp: N/A
Luminaire Lumens: 1518.0 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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				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°	8323	8323	8323
5°	8210	8200	8191
10°	8138	8129	8071
15°	7920	7840	7730
20°	7629	7506	7301
25°	7315	7156	6710
30°	6933	6710	6044
35°	6566	6202	5591
40°	6192	5653	5087
45°	5838	5226	4599
50°	5404	4850	4101
55°	4999	4395	3674
60°	4581	3927	3292
65°	4029	3438	2914
70°	3320	3012	2477
75°	2641	2304	2416
80°	1773	1661	1550
85°	1099	1321	1544



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.0	4.7
10°-20°	197.5	13.0
20°-30°	273.5	18.0
30°-40°	291.6	19.2
40°-50°	266.0	17.5
50°-60°	208.4	13.7
60°-70°	135.8	8.9
70°-80°	60.2	4.0
80°-90°	12.9	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°	543.0	35.8
0°-40°	834.6	55.0
0°-60°	1309.0	86.2
0°-90°	1518.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1518.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	773	773	773	773	773	
5°	760	759	759	758	758	72
15°	711	711	704	696	694	200
25°	616	612	602	581	565	283
35°	500	496	472	436	426	312
45°	384	376	343	315	302	295
55°	266	258	234	206	196	239
65°	158	149	135	138	114	156
75°	64	59	55	53	58	68
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	773.2	773.2	773.2	773.2	773.2
2.5°	767.9	767.9	767.9	767.0	767.0
5°	759.8	758.9	758.9	758.1	758.1
7.5°	753.6	752.7	751.8	750.9	749.1
10°	744.6	744.6	743.7	739.3	738.4
12.5°	730.3	729.4	725.9	719.6	717.8
15°	710.7	710.7	703.5	696.4	693.7
17.5°	689.2	688.3	679.4	672.2	668.7
20°	666.0	664.2	655.3	643.6	637.4
22.5°	640.1	640.1	629.3	614.1	607.9
25°	615.9	612.3	602.5	581.1	565.0
27.5°	588.2	582.8	572.1	541.7	522.9
30°	557.8	555.1	539.9	500.6	486.3
32.5°	529.2	524.7	508.6	467.5	455.9
35°	499.7	496.1	472.0	436.2	425.5
37.5°	470.2	465.7	435.3	406.7	393.3
40°	440.7	435.3	402.3	376.3	362.0
42.5°	413.0	405.8	373.7	346.0	329.9
45°	383.5	375.5	343.3	314.7	302.1
47.5°	354.0	346.8	317.3	287.8	273.5
50°	322.7	316.5	289.6	260.1	244.9
52.5°	296.8	287.0	261.0	231.5	219.0
55°	266.4	258.3	234.2	206.5	195.8
57.5°	238.7	230.6	208.3	182.4	173.4
60°	212.8	201.1	182.4	160.0	152.9
62.5°	184.1	175.2	159.1	140.3	149.3
65°	158.2	149.3	135.0	137.7	114.4
67.5°	129.6	125.2	112.6	100.1	96.5
70°	105.5	100.1	95.7	82.2	78.7
72.5°	84.0	78.7	72.4	65.3	62.6
75°	63.5	59.0	55.4	52.7	58.1
77.5°	43.8	42.0	39.3	36.7	35.8
80°	28.6	27.7	26.8	25.9	25.0
82.5°	17.0	17.0	17.0	17.0	17.0
85°	8.9	9.8	10.7	11.6	12.5
87.5°	5.4	5.4	6.3	7.2	8.0
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)