

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: P545208

Luminaire Tested: **FMR-12-1-LD4-2STD-50-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: P545208
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-LD4-2STD-50-UNV-80-85-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

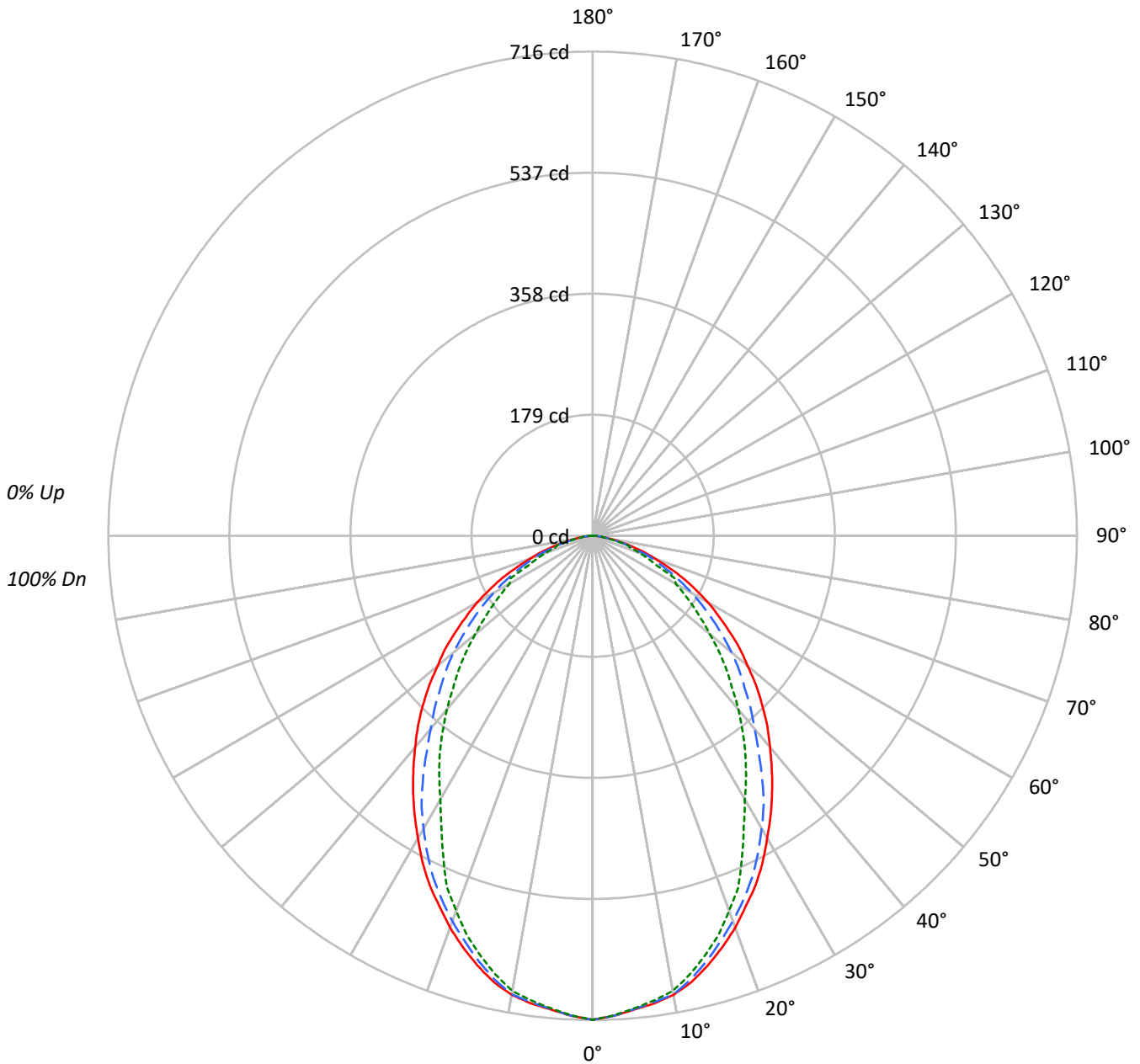
Lumens per Lamp: N/A
Luminaire Lumens: 1405.0 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	7704	7704	7704
5°	7599	7591	7581
10°	7533	7524	7470
15°	7330	7257	7155
20°	7061	6947	6757
25°	6771	6624	6210
30°	6417	6211	5594
35°	6077	5741	5175
40°	5732	5231	4709
45°	5402	4836	4258
50°	5002	4490	3796
55°	4628	4069	3400
60°	4239	3634	3046
65°	3729	3181	2697
70°	3072	2785	2291
75°	2441	2133	2237
80°	1643	1537	1438
85°	1025	1223	1433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	4.7
10°-20°	182.8	13.0
20°-30°	253.1	18.0
30°-40°	269.9	19.2
40°-50°	246.2	17.5
50°-60°	192.9	13.7
60°-70°	125.7	8.9
70°-80°	55.7	4.0
80°-90°	12.0	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°	502.6	35.8
0°-40°	772.5	55.0
0°-60°	1211.6	86.2
0°-90°	1405.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1405.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	716	716	716	716	716	
5°	703	702	702	702	702	67
15°	658	658	651	644	642	185
25°	570	567	558	538	523	262
35°	462	459	437	404	394	289
45°	355	348	318	291	280	273
55°	247	239	217	191	181	221
65°	146	138	125	127	106	144
75°	59	55	51	49	54	63
85°	8	9	10	11	12	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	715.7	715.7	715.7	715.7	715.7
2.5°	710.7	710.7	710.7	709.9	709.9
5°	703.3	702.5	702.5	701.6	701.6
7.5°	697.5	696.7	695.8	695.0	693.3
10°	689.2	689.2	688.4	684.2	683.4
12.5°	676.0	675.1	671.8	666.0	664.4
15°	657.8	657.8	651.2	644.5	642.1
17.5°	637.9	637.1	628.8	622.2	618.9
20°	616.4	614.7	606.5	595.7	589.9
22.5°	592.4	592.4	582.5	568.4	562.6
25°	570.1	566.8	557.7	537.8	522.9
27.5°	544.4	539.5	529.5	501.4	484.0
30°	516.3	513.8	499.7	463.3	450.1
32.5°	489.8	485.7	470.8	432.7	422.0
35°	462.5	459.2	436.9	403.8	393.8
37.5°	435.2	431.1	402.9	376.5	364.0
40°	407.9	402.9	372.3	348.3	335.1
42.5°	382.3	375.6	345.8	320.2	305.3
45°	354.9	347.5	317.7	291.2	279.7
47.5°	327.6	321.0	293.7	266.4	253.2
50°	298.7	292.9	268.1	240.8	226.7
52.5°	274.7	265.6	241.6	214.3	202.7
55°	246.6	239.1	216.8	191.1	181.2
57.5°	220.9	213.5	192.8	168.8	160.5
60°	196.9	186.2	168.8	148.1	141.5
62.5°	170.4	162.2	147.3	129.9	138.2
65°	146.4	138.2	124.9	127.4	105.9
67.5°	120.0	115.8	104.3	92.7	89.4
70°	97.6	92.7	88.5	76.1	72.8
72.5°	77.8	72.8	67.0	60.4	57.9
75°	58.7	54.6	51.3	48.8	53.8
77.5°	40.5	38.9	36.4	33.9	33.1
80°	26.5	25.6	24.8	24.0	23.2
82.5°	15.7	15.7	15.7	15.7	15.7
85°	8.3	9.1	9.9	10.8	11.6
87.5°	5.0	5.0	5.8	6.6	7.4
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)