

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: P556658

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-80-85-EDD-90**

Issue Date: 7/16/2021

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: P556658
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-1STD-30-UNV-80-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

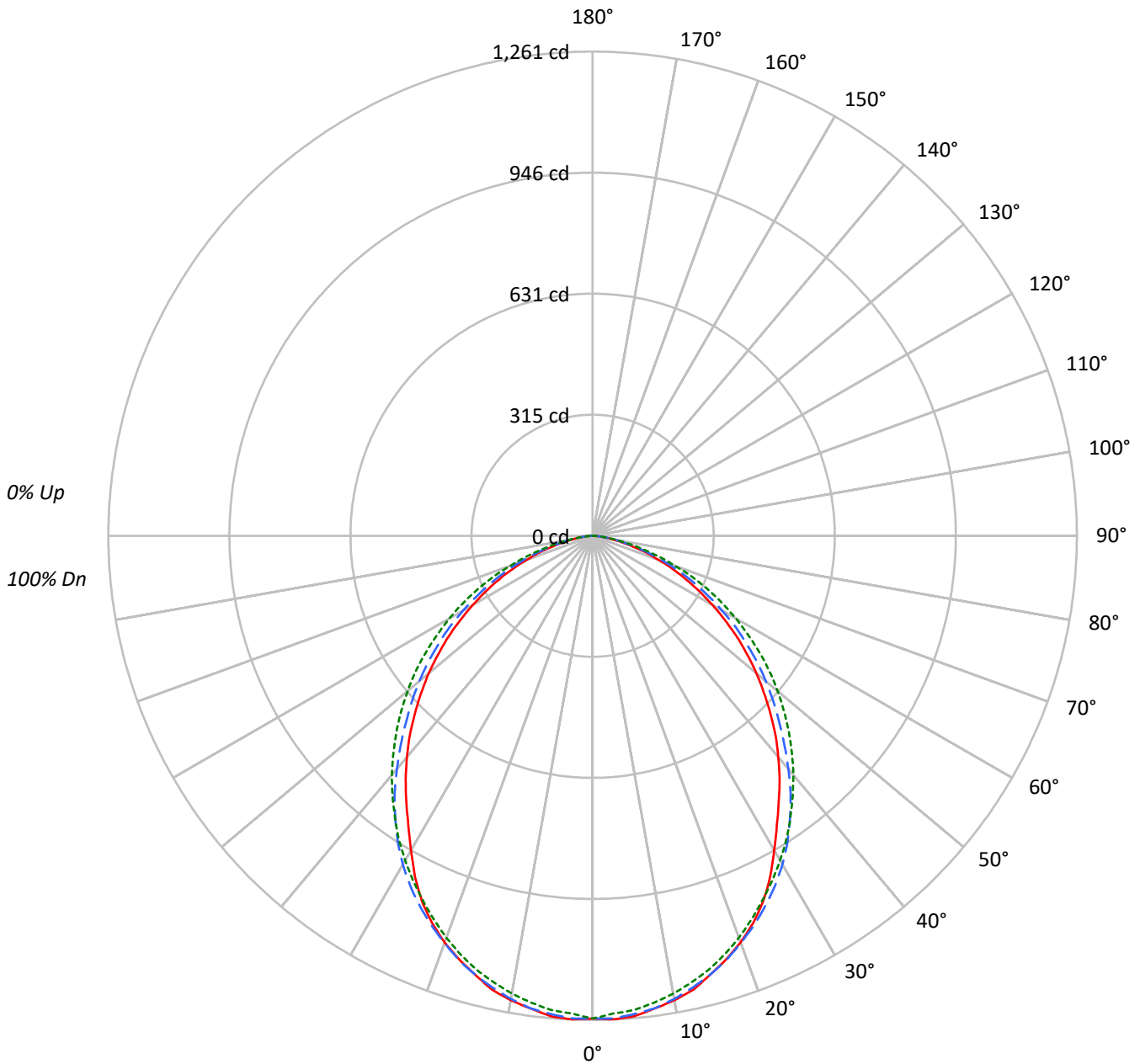
Lumens per Lamp: N/A
Luminaire Lumens: 2907.0 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3383	3383	3383
5°	3392	3378	3349
10°	3356	3347	3309
15°	3297	3297	3259
20°	3227	3231	3190
25°	3121	3159	3109
30°	2939	3071	3033
35°	2777	2943	2948
40°	2642	2784	2857
45°	2490	2616	2750
50°	2331	2465	2632
55°	2151	2293	2490
60°	1936	2093	2316
65°	1710	1861	2106
70°	1425	1585	1790
75°	1120	1265	1402
80°	801	891	989
85°	522	522	491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	4.1
10°-20°	332.5	11.4
20°-30°	485.9	16.7
30°-40°	551.6	19.0
40°-50°	532.5	18.3
50°-60°	439.3	15.1
60°-70°	292.5	10.1
70°-80°	130.9	4.5
80°-90°	23.4	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°	936.8	32.2
0°-40°	1488.4	51.2
0°-60°	2460.2	84.6
0°-90°	2907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2907.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1257	1257	1257	1257	1257	
5°	1256	1255	1250	1244	1240	119
15°	1183	1186	1183	1178	1170	334
25°	1051	1059	1064	1056	1047	481
35°	845	857	896	901	897	530
45°	654	666	687	719	722	505
55°	458	466	489	516	531	409
65°	268	276	292	313	331	266
75°	108	114	122	128	135	118
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1257.2	1257.2	1257.2	1257.2	1257.2
2.5°	1260.6	1261.1	1258.2	1250.4	1245.6
5°	1255.8	1255.3	1250.4	1243.7	1239.8
7.5°	1241.7	1242.7	1241.3	1231.6	1226.3
10°	1228.2	1228.7	1224.8	1217.1	1210.8
12.5°	1210.8	1210.4	1205.0	1201.2	1191.0
15°	1183.3	1186.2	1183.3	1178.0	1169.8
17.5°	1156.7	1156.7	1158.7	1149.5	1143.2
20°	1126.8	1128.2	1128.2	1121.0	1113.8
22.5°	1092.0	1096.4	1097.8	1090.1	1081.4
25°	1051.0	1059.2	1064.0	1056.3	1047.1
27.5°	1001.2	1013.8	1028.3	1022.5	1012.3
30°	945.7	964.0	988.2	983.4	976.1
32.5°	893.0	911.4	944.7	942.8	938.9
35°	845.2	856.8	895.9	900.8	897.4
37.5°	799.8	810.4	847.2	858.3	855.4
40°	752.0	763.6	792.6	812.4	813.3
42.5°	704.7	715.8	739.4	767.9	767.9
45°	654.4	665.5	687.3	718.7	722.5
47.5°	605.2	616.8	638.0	669.4	675.7
50°	556.9	567.5	588.8	619.2	628.8
52.5°	506.6	518.2	539.0	567.0	581.0
55°	458.4	466.1	488.8	515.8	530.8
57.5°	408.1	415.4	441.0	464.1	479.6
60°	359.8	369.0	388.8	412.5	430.3
62.5°	313.5	323.1	340.0	360.8	381.1
65°	268.5	275.8	292.2	313.0	330.8
67.5°	225.1	231.3	247.8	262.3	281.1
70°	181.1	189.3	201.4	215.4	227.5
72.5°	145.9	149.2	159.4	169.5	182.1
75°	107.7	113.5	121.7	127.5	134.8
77.5°	77.3	80.7	85.5	90.3	97.1
80°	51.7	53.1	57.5	58.4	63.8
82.5°	31.4	32.4	33.3	33.8	35.7
85°	16.9	16.9	16.9	15.9	15.9
87.5°	9.7	9.7	8.2	6.8	4.8
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)