

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: P556419

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-81-85-EDD**

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: P556419
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-LD4-1LO-30-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

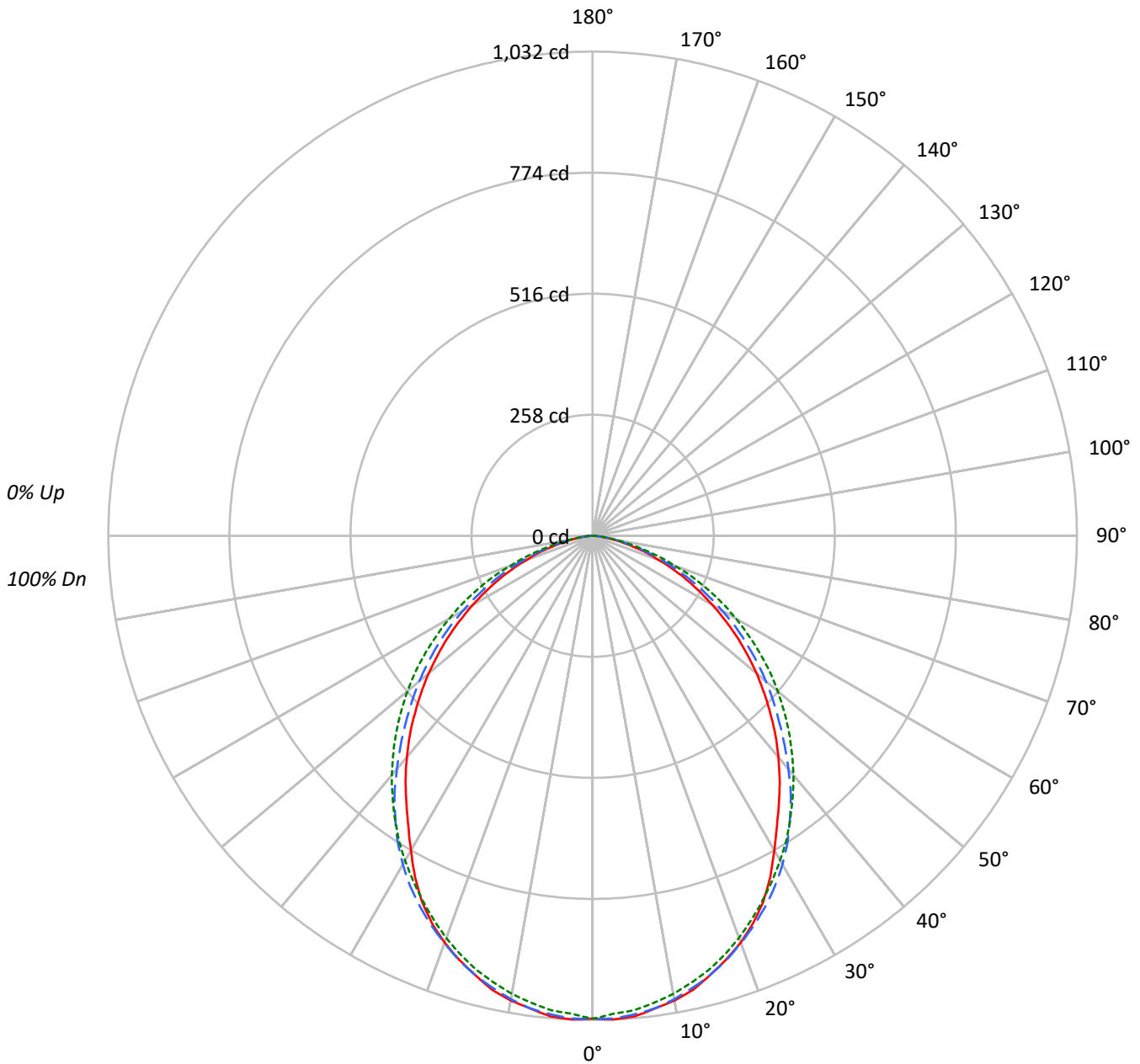
Lumens per Lamp: N/A
Luminaire Lumens: 2380.0 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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									
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°	2770	2770	2770
5°	2777	2766	2742
10°	2748	2740	2709
15°	2699	2699	2668
20°	2642	2645	2611
25°	2555	2586	2545
30°	2406	2514	2483
35°	2273	2410	2414
40°	2163	2279	2339
45°	2039	2141	2251
50°	1909	2018	2155
55°	1761	1878	2039
60°	1586	1713	1896
65°	1400	1523	1725
70°	1167	1297	1465
75°	917	1036	1147
80°	656	730	809
85°	426	426	401



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	4.1
10°-20°	272.2	11.4
20°-30°	397.8	16.7
30°-40°	451.6	19.0
40°-50°	436.0	18.3
50°-60°	359.6	15.1
60°-70°	239.5	10.1
70°-80°	107.2	4.5
80°-90°	19.2	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°	767.0	32.2
0°-40°	1218.6	51.2
0°-60°	2014.2	84.6
0°-90°	2380.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2380.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1029	1029	1029	1029	1029	
5°	1028	1028	1024	1018	1015	97
15°	969	971	969	964	958	273
25°	860	867	871	865	857	394
35°	692	702	734	738	735	434
45°	536	545	563	588	592	413
55°	375	382	400	422	435	335
65°	220	226	239	256	271	218
75°	88	93	100	104	110	96
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1029.3	1029.3	1029.3	1029.3	1029.3
2.5°	1032.1	1032.5	1030.1	1023.8	1019.8
5°	1028.1	1027.7	1023.8	1018.2	1015.1
7.5°	1016.6	1017.4	1016.2	1008.3	1004.0
10°	1005.6	1006.0	1002.8	996.5	991.3
12.5°	991.3	990.9	986.6	983.4	975.1
15°	968.8	971.2	968.8	964.4	957.7
17.5°	947.0	947.0	948.6	941.1	936.0
20°	922.5	923.7	923.7	917.8	911.8
22.5°	894.1	897.6	898.8	892.5	885.4
25°	860.4	867.2	871.1	864.8	857.3
27.5°	819.7	830.0	841.9	837.1	828.8
30°	774.2	789.3	809.0	805.1	799.2
32.5°	731.1	746.2	773.4	771.9	768.7
35°	692.0	701.5	733.5	737.5	734.7
37.5°	654.8	663.5	693.6	702.7	700.3
40°	615.7	625.2	648.9	665.1	665.9
42.5°	576.9	586.0	605.4	628.7	628.7
45°	535.8	544.9	562.7	588.4	591.6
47.5°	495.5	505.0	522.4	548.1	553.2
50°	455.9	464.6	482.0	506.9	514.8
52.5°	414.8	424.3	441.3	464.2	475.7
55°	375.3	381.6	400.2	422.3	434.6
57.5°	334.1	340.1	361.0	380.0	392.7
60°	294.6	302.1	318.3	337.7	352.3
62.5°	256.6	264.5	278.4	295.4	312.0
65°	219.9	225.8	239.2	256.2	270.9
67.5°	184.3	189.4	202.9	214.7	230.1
70°	148.3	155.0	164.9	176.4	186.2
72.5°	119.4	122.2	130.5	138.8	149.1
75°	88.2	92.9	99.6	104.4	110.3
77.5°	63.3	66.0	70.0	73.9	79.5
80°	42.3	43.5	47.1	47.8	52.2
82.5°	25.7	26.5	27.3	27.7	29.3
85°	13.8	13.8	13.8	13.0	13.0
87.5°	7.9	7.9	6.7	5.5	4.0
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)