

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: P558171

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-82-94-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: P558171
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-LD4-3LO-50-UNV-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

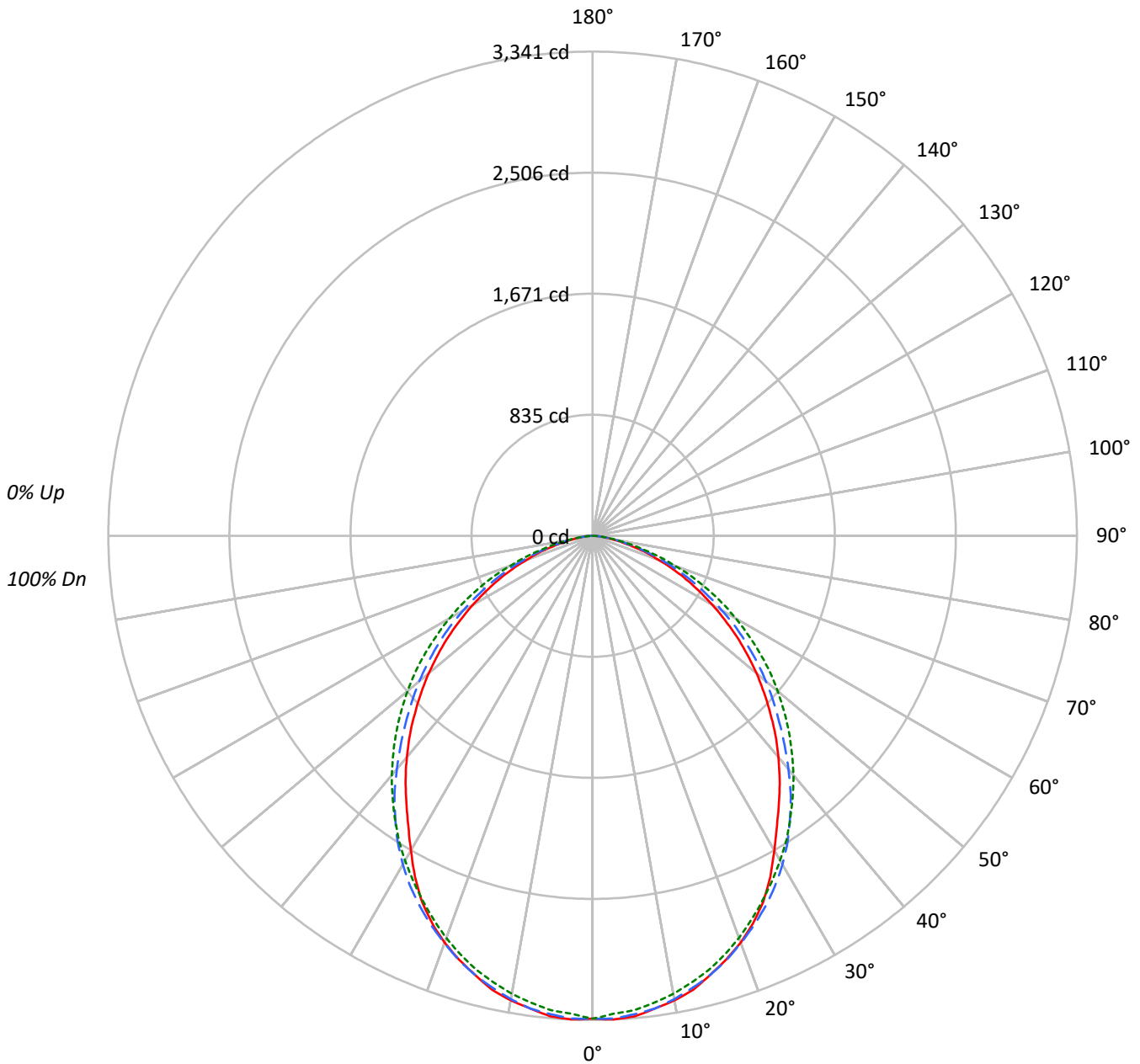
Lumens per Lamp: N/A
Luminaire Lumens: 7705.0 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	8967	8967	8967
5°	8991	8953	8877
10°	8895	8871	8769
15°	8738	8738	8638
20°	8553	8564	8454
25°	8271	8374	8241
30°	7788	8139	8039
35°	7360	7801	7814
40°	7002	7379	7573
45°	6601	6932	7288
50°	6179	6533	6978
55°	5700	6078	6601
60°	5133	5546	6139
65°	4532	4932	5584
70°	3777	4200	4744
75°	2968	3354	3714
80°	2123	2360	2619
85°	1383	1383	1303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	313.7	4.1
10°-20°	881.4	11.4
20°-30°	1288.0	16.7
30°-40°	1462.0	19.0
40°-50°	1411.3	18.3
50°-60°	1164.3	15.1
60°-70°	775.3	10.1
70°-80°	346.9	4.5
80°-90°	62.1	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°	2483.1	32.2
0°-40°	3945.1	51.2
0°-60°	6520.7	84.6
0°-90°	7705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3332	3332	3332	3332	3332	
5°	3328	3327	3314	3296	3286	315
15°	3136	3144	3136	3122	3100	884
25°	2786	2807	2820	2800	2775	1276
35°	2240	2271	2375	2388	2378	1404
45°	1735	1764	1822	1905	1915	1338
55°	1215	1235	1296	1367	1407	1084
65°	712	731	774	830	877	706
75°	286	301	323	338	357	312
85°	45	45	45	42	42	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3332.2	3332.2	3332.2	3332.2	3332.2
2.5°	3341.2	3342.5	3334.8	3314.3	3301.5
5°	3328.4	3327.1	3314.3	3296.4	3286.1
7.5°	3291.2	3293.8	3290.0	3264.4	3250.3
10°	3255.4	3256.7	3246.4	3226.0	3209.3
12.5°	3209.3	3208.0	3194.0	3183.7	3156.8
15°	3136.4	3144.0	3136.4	3122.3	3100.5
17.5°	3065.9	3065.9	3071.1	3046.7	3030.1
20°	2986.6	2990.4	2990.4	2971.2	2952.0
22.5°	2894.4	2905.9	2909.8	2889.3	2866.2
25°	2785.6	2807.4	2820.2	2799.7	2775.4
27.5°	2653.7	2687.0	2725.4	2710.1	2683.2
30°	2506.5	2555.2	2619.2	2606.4	2587.2
32.5°	2367.0	2415.6	2504.0	2498.8	2488.6
35°	2240.3	2271.0	2374.7	2387.5	2378.5
37.5°	2119.9	2148.1	2245.4	2274.8	2267.1
40°	1993.2	2023.9	2100.7	2153.2	2155.8
42.5°	1867.7	1897.2	1959.9	2035.4	2035.4
45°	1734.6	1764.0	1821.6	1904.9	1915.1
47.5°	1604.0	1634.7	1691.1	1774.3	1790.9
50°	1476.0	1504.2	1560.5	1641.1	1666.7
52.5°	1342.9	1373.6	1428.6	1502.9	1540.0
55°	1214.9	1235.3	1295.5	1367.2	1406.9
57.5°	1081.7	1100.9	1168.8	1230.2	1271.2
60°	953.7	978.0	1030.5	1093.2	1140.6
62.5°	830.8	856.4	901.2	956.3	1010.0
65°	711.8	731.0	774.5	829.5	876.9
67.5°	596.5	613.2	656.7	695.1	745.0
70°	480.1	501.8	533.8	570.9	602.9
72.5°	386.6	395.6	422.4	449.3	482.6
75°	285.5	300.8	322.6	338.0	357.2
77.5°	204.8	213.8	226.6	239.4	257.3
80°	137.0	140.8	152.3	154.9	169.0
82.5°	83.2	85.8	88.3	89.6	94.7
85°	44.8	44.8	44.8	42.2	42.2
87.5°	25.6	25.6	21.8	17.9	12.8
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)