

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: P556949

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-82-86-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: P556949
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-LD4-2HI-30-UNV-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

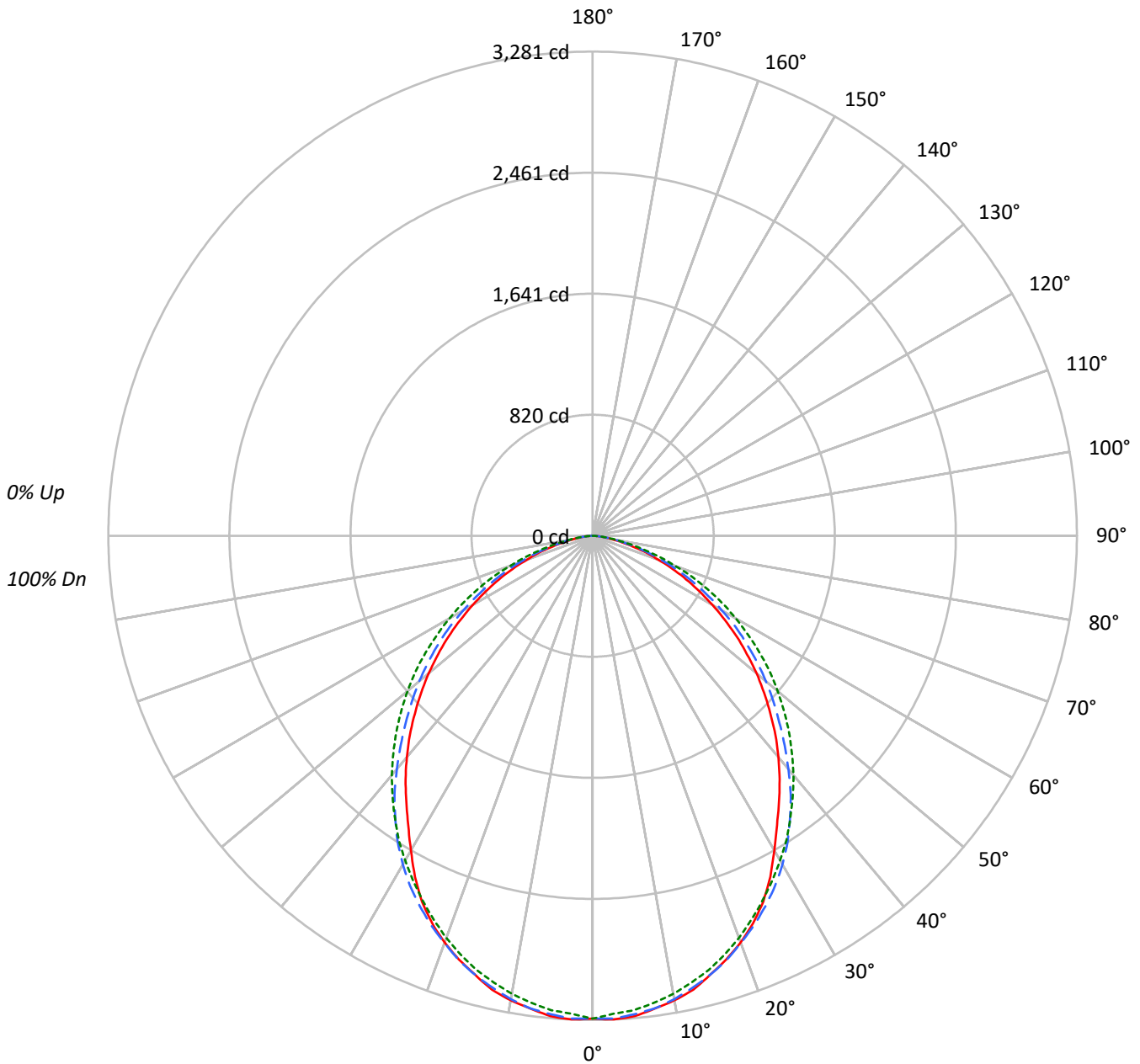
Lumens per Lamp: N/A
Luminaire Lumens: 7566.0 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8805	8805	8805
5°	8829	8791	8716
10°	8735	8711	8611
15°	8580	8580	8482
20°	8398	8409	8301
25°	8122	8223	8092
30°	7648	7992	7894
35°	7227	7660	7673
40°	6875	7246	7436
45°	6482	6807	7156
50°	6068	6415	6852
55°	5597	5968	6481
60°	5040	5446	6028
65°	4450	4842	5483
70°	3709	4124	4659
75°	2914	3294	3646
80°	2084	2318	2571
85°	1359	1359	1281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.1	4.1
10°-20°	865.5	11.4
20°-30°	1264.8	16.7
30°-40°	1435.6	19.0
40°-50°	1385.9	18.3
50°-60°	1143.3	15.1
60°-70°	761.3	10.1
70°-80°	340.7	4.5
80°-90°	60.9	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°	2438.3	32.2
0°-40°	3873.9	51.2
0°-60°	6403.1	84.6
0°-90°	7566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3272	3272	3272	3272	3272	
5°	3268	3267	3254	3237	3227	309
15°	3080	3087	3080	3066	3045	868
25°	2735	2757	2769	2749	2725	1253
35°	2200	2230	2332	2344	2336	1378
45°	1703	1732	1789	1870	1880	1314
55°	1193	1213	1272	1342	1382	1065
65°	699	718	760	815	861	693
75°	280	295	317	332	351	306
85°	44	44	44	42	42	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3272.1	3272.1	3272.1	3272.1	3272.1
2.5°	3280.9	3282.2	3274.6	3254.5	3241.9
5°	3268.3	3267.1	3254.5	3236.9	3226.8
7.5°	3231.9	3234.4	3230.6	3205.5	3191.6
10°	3196.7	3197.9	3187.9	3167.8	3151.4
12.5°	3151.4	3150.2	3136.3	3126.3	3099.9
15°	3079.8	3087.3	3079.8	3065.9	3044.6
17.5°	3010.6	3010.6	3015.7	2991.8	2975.4
20°	2932.7	2936.5	2936.5	2917.6	2898.8
22.5°	2842.2	2853.5	2857.3	2837.2	2814.5
25°	2735.3	2756.7	2769.3	2749.2	2725.3
27.5°	2605.9	2638.5	2676.3	2661.2	2634.8
30°	2461.3	2509.1	2571.9	2559.4	2540.5
32.5°	2324.3	2372.1	2458.8	2453.8	2443.7
35°	2199.8	2230.0	2331.8	2344.4	2335.6
37.5°	2081.7	2109.3	2204.9	2233.8	2226.2
40°	1957.2	1987.4	2062.8	2114.4	2116.9
42.5°	1834.0	1862.9	1924.5	1998.7	1998.7
45°	1703.3	1732.2	1788.8	1870.5	1880.5
47.5°	1575.1	1605.3	1660.6	1742.3	1758.6
50°	1449.4	1477.0	1532.3	1611.5	1636.7
52.5°	1318.6	1348.8	1402.9	1475.8	1512.2
55°	1192.9	1213.1	1272.1	1342.5	1381.5
57.5°	1062.2	1081.1	1147.7	1208.0	1248.3
60°	936.5	960.4	1011.9	1073.5	1120.0
62.5°	815.8	841.0	885.0	939.0	991.8
65°	698.9	717.8	760.5	814.6	861.1
67.5°	585.8	602.1	644.9	682.6	731.6
70°	471.4	492.8	524.2	560.6	592.1
72.5°	379.6	388.4	414.8	441.2	473.9
75°	280.3	295.4	316.8	331.9	350.7
77.5°	201.1	209.9	222.5	235.1	252.7
80°	134.5	138.3	149.6	152.1	165.9
82.5°	81.7	84.2	86.7	88.0	93.0
85°	44.0	44.0	44.0	41.5	41.5
87.5°	25.1	25.1	21.4	17.6	12.6
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)