

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: P556955

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-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: P556955
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-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

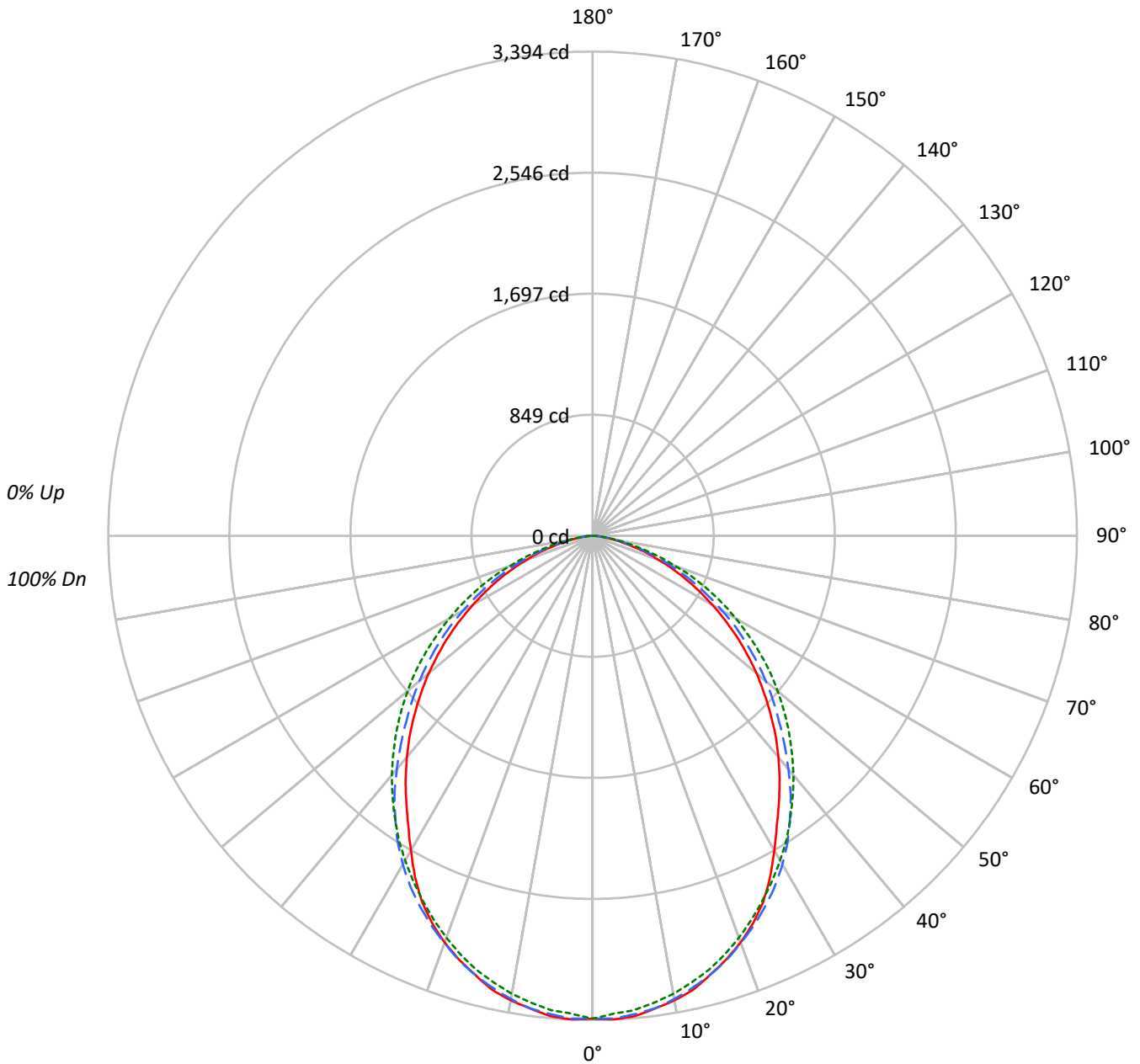
Lumens per Lamp: N/A
Luminaire Lumens: 7826.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	9108	9108	9108
5°	9132	9093	9016
10°	9035	9010	8907
15°	8875	8875	8773
20°	8687	8698	8586
25°	8401	8505	8370
30°	7911	8266	8165
35°	7475	7924	7936
40°	7112	7495	7692
45°	6705	7042	7403
50°	6276	6635	7087
55°	5789	6173	6704
60°	5214	5633	6235
65°	4603	5009	5671
70°	3836	4266	4818
75°	3015	3407	3772
80°	2156	2397	2659
85°	1405	1405	1325



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.7	4.1
10°-20°	895.2	11.4
20°-30°	1308.2	16.7
30°-40°	1485.0	19.0
40°-50°	1433.5	18.3
50°-60°	1182.5	15.1
60°-70°	787.5	10.1
70°-80°	352.4	4.5
80°-90°	63.0	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°	2522.1	32.2
0°-40°	4007.1	51.2
0°-60°	6623.1	84.6
0°-90°	7826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3384	3384	3384	3384	3384	
5°	3381	3379	3366	3348	3338	320
15°	3186	3193	3186	3171	3149	898
25°	2829	2851	2864	2844	2819	1296
35°	2275	2307	2412	2425	2416	1426
45°	1762	1792	1850	1935	1945	1359
55°	1234	1255	1316	1389	1429	1101
65°	723	742	787	843	891	717
75°	290	306	328	343	363	317
85°	46	46	46	43	43	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3384.5	<i>3384.5</i>	3384.5	3384.5	3384.5
2.5°	<i>3393.6</i>	<i>3394.9</i>	<i>3387.1</i>	<i>3366.3</i>	<i>3353.3</i>
5°	3380.6	<i>3379.3</i>	3366.3	3348.1	3337.7
7.5°	3342.9	<i>3345.5</i>	3341.6	3315.6	3301.3
10°	3306.5	<i>3307.8</i>	3297.4	3276.6	3259.7
12.5°	3259.7	<i>3258.4</i>	3244.1	3233.7	3206.4
15°	3185.6	<i>3193.4</i>	3185.6	3171.3	3149.2
17.5°	3114.1	<i>3114.1</i>	3119.3	3094.6	3077.7
20°	3033.5	<i>3037.4</i>	3037.4	3017.9	2998.4
22.5°	2939.9	<i>2951.6</i>	2955.5	2934.7	2911.3
25°	2829.3	<i>2851.4</i>	2864.4	2843.6	2818.9
27.5°	2695.4	<i>2729.2</i>	2768.2	2752.6	2725.3
30°	2545.9	<i>2595.3</i>	2660.3	2647.3	2627.8
32.5°	2404.2	<i>2453.6</i>	2543.3	2538.1	2527.7
35°	2275.4	<i>2306.6</i>	2412.0	2425.0	2415.9
37.5°	2153.2	<i>2181.8</i>	2280.6	2310.5	2302.7
40°	2024.5	<i>2055.7</i>	2133.7	2187.0	2189.6
42.5°	1897.1	<i>1927.0</i>	1990.7	2067.4	2067.4
45°	1761.8	<i>1791.7</i>	1850.3	1934.8	1945.2
47.5°	1629.2	<i>1660.4</i>	1717.6	1802.1	1819.0
50°	1499.2	<i>1527.8</i>	1585.0	1666.9	1692.9
52.5°	1364.0	<i>1395.2</i>	1451.1	1526.5	1564.2
55°	1233.9	<i>1254.7</i>	1315.8	1388.7	1429.0
57.5°	1098.7	<i>1118.2</i>	1187.1	1249.5	1291.1
60°	968.7	<i>993.4</i>	1046.7	1110.4	1158.5
62.5°	843.9	<i>869.9</i>	915.4	971.3	1025.9
65°	722.9	<i>742.4</i>	786.6	842.6	890.7
67.5°	605.9	<i>622.8</i>	667.0	706.0	756.7
70°	487.6	<i>509.7</i>	542.2	579.9	612.4
72.5°	392.7	<i>401.8</i>	429.1	456.4	490.2
75°	290.0	<i>305.6</i>	327.7	343.3	362.8
77.5°	208.0	<i>217.1</i>	230.1	243.1	261.3
80°	139.1	<i>143.0</i>	154.7	157.3	171.6
82.5°	84.5	<i>87.1</i>	89.7	91.0	96.2
85°	45.5	<i>45.5</i>	45.5	42.9	42.9
87.5°	26.0	<i>26.0</i>	22.1	18.2	13.0
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)