

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: P556971

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-93-94-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: P556971
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-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

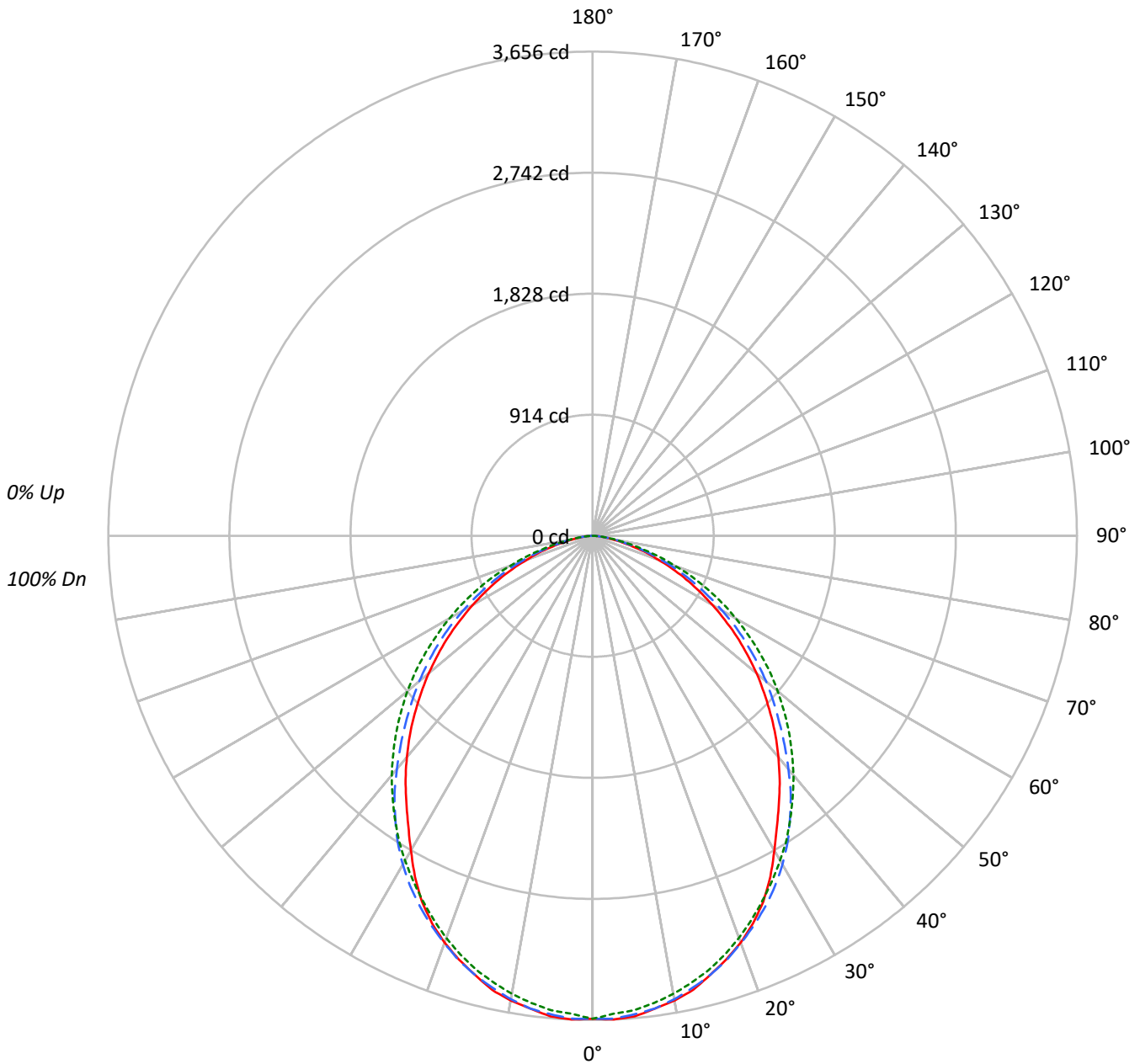
Lumens per Lamp: N/A
Luminaire Lumens: 8432.0 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9813	9813	9813
5°	9839	9797	9714
10°	9735	9708	9597
15°	9562	9562	9453
20°	9360	9372	9251
25°	9051	9164	9018
30°	8523	8906	8798
35°	8054	8537	8551
40°	7662	8076	8287
45°	7224	7587	7976
50°	6762	7149	7636
55°	6237	6651	7223
60°	5617	6069	6718
65°	4960	5397	6110
70°	4133	4596	5191
75°	3248	3670	4064
80°	2323	2583	2865
85°	1513	1513	1426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.3	4.1
10°-20°	964.5	11.4
20°-30°	1409.5	16.7
30°-40°	1599.9	19.0
40°-50°	1544.5	18.3
50°-60°	1274.1	15.1
60°-70°	848.4	10.1
70°-80°	379.7	4.5
80°-90°	67.9	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°	2717.4	32.2
0°-40°	4317.3	51.2
0°-60°	7136.0	84.6
0°-90°	8432.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8432.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3647	3647	3647	3647	3647	
5°	3642	3641	3627	3607	3596	345
15°	3432	3441	3432	3417	3393	968
25°	3048	3072	3086	3064	3037	1396
35°	2452	2485	2599	2613	2603	1536
45°	1898	1930	1994	2085	2096	1465
55°	1330	1352	1418	1496	1540	1187
65°	779	800	848	908	960	772
75°	312	329	353	370	391	342
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3646.6	3646.6	3646.6	3646.6	3646.6
2.5°	3656.4	3657.8	3649.4	3627.0	3613.0
5°	3642.4	3641.0	3627.0	3607.4	3596.2
7.5°	3601.8	3604.6	3600.4	3572.4	3557.0
10°	3562.6	3564.0	3552.8	3530.3	3512.1
12.5°	3512.1	3510.7	3495.3	3484.1	3454.7
15°	3432.3	3440.7	3432.3	3416.9	3393.1
17.5°	3355.2	3355.2	3360.8	3334.2	3316.0
20°	3268.4	3272.6	3272.6	3251.6	3230.5
22.5°	3167.5	3180.1	3184.3	3161.9	3136.7
25°	3048.4	3072.2	3086.3	3063.8	3037.2
27.5°	2904.1	2940.6	2982.6	2965.8	2936.4
30°	2743.0	2796.3	2866.3	2852.3	2831.3
32.5°	2590.3	2643.6	2740.2	2734.6	2723.4
35°	2451.6	2485.3	2598.7	2612.7	2602.9
37.5°	2319.9	2350.8	2457.2	2489.5	2481.0
40°	2181.2	2214.9	2298.9	2356.4	2359.2
42.5°	2044.0	2076.2	2144.8	2227.5	2227.5
45°	1898.3	1930.5	1993.5	2084.6	2095.8
47.5°	1755.4	1789.0	1850.6	1941.7	1959.9
50°	1615.3	1646.1	1707.7	1796.0	1824.0
52.5°	1469.6	1503.2	1563.4	1644.7	1685.3
55°	1329.5	1351.9	1417.7	1496.2	1539.6
57.5°	1183.8	1204.8	1279.0	1346.3	1391.1
60°	1043.7	1070.3	1127.7	1196.4	1248.2
62.5°	909.2	937.2	986.3	1046.5	1105.3
65°	778.9	799.9	847.6	907.8	959.6
67.5°	652.8	671.0	718.7	760.7	815.3
70°	525.3	549.2	584.2	624.8	659.8
72.5°	423.1	432.9	462.3	491.7	528.2
75°	312.4	329.2	353.0	369.8	390.9
77.5°	224.1	234.0	248.0	262.0	281.6
80°	149.9	154.1	166.7	169.5	184.9
82.5°	91.1	93.9	96.7	98.1	103.7
85°	49.0	49.0	49.0	46.2	46.2
87.5°	28.0	28.0	23.8	19.6	14.0
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)