

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: P556963

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-93-85-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: P556963
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-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

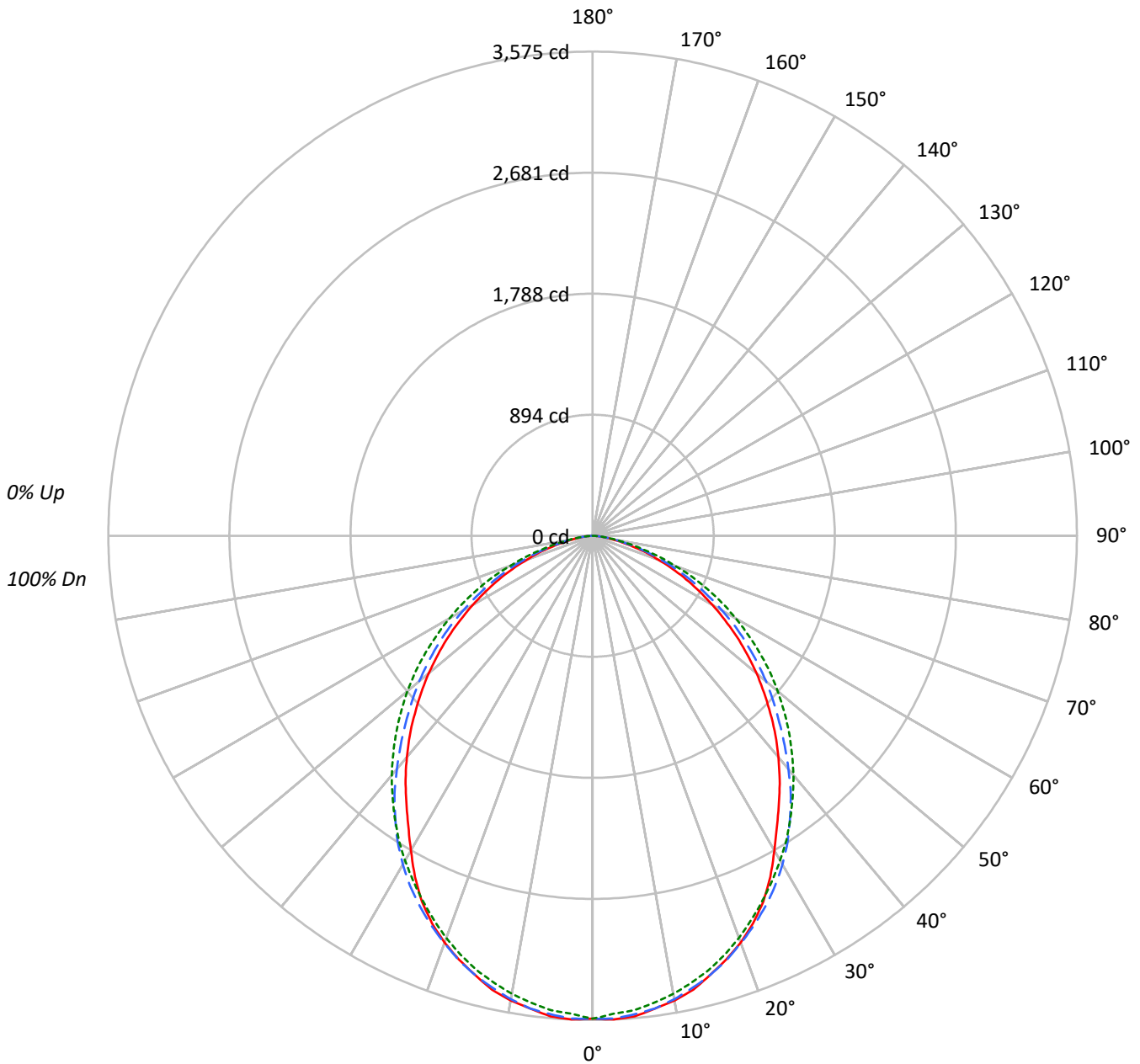
Lumens per Lamp: N/A
Luminaire Lumens: 8245.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9595	9595	9595
5°	9621	9580	9499
10°	9519	9493	9384
15°	9350	9350	9243
20°	9152	9164	9046
25°	8850	8960	8818
30°	8334	8709	8602
35°	7875	8348	8361
40°	7493	7896	8103
45°	7064	7418	7799
50°	6612	6991	7467
55°	6099	6504	7063
60°	5492	5935	6569
65°	4849	5277	5975
70°	4042	4494	5076
75°	3176	3589	3974
80°	2272	2526	2802
85°	1479	1479	1396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.7	4.1
10°-20°	943.2	11.4
20°-30°	1378.2	16.7
30°-40°	1564.5	19.0
40°-50°	1510.3	18.3
50°-60°	1245.9	15.1
60°-70°	829.6	10.1
70°-80°	371.3	4.5
80°-90°	66.4	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°	2657.1	32.2
0°-40°	4221.6	51.2
0°-60°	6977.7	84.6
0°-90°	8245.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8245.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3566	3566	3566	3566	3566	
5°	3562	3560	3547	3527	3516	337
15°	3356	3364	3356	3341	3318	946
25°	2981	3004	3018	2996	2970	1365
35°	2397	2430	2541	2555	2545	1502
45°	1856	1888	1949	2038	2049	1432
55°	1300	1322	1386	1463	1506	1160
65°	762	782	829	888	938	755
75°	306	322	345	362	382	334
85°	48	48	48	45	45	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3565.7	3565.7	3565.7	3565.7	3565.7
2.5°	3575.3	3576.7	3568.5	3546.6	3532.9
5°	3561.6	3560.3	3546.6	3527.4	3516.4
7.5°	3521.9	3524.7	3520.5	3493.1	3478.1
10°	3483.6	3484.9	3474.0	3452.1	3434.2
12.5°	3434.2	3432.9	3417.8	3406.8	3378.1
15°	3356.2	3364.4	3356.2	3341.1	3317.8
17.5°	3280.8	3280.8	3286.3	3260.3	3242.5
20°	3195.9	3200.0	3200.0	3179.4	3158.9
22.5°	3097.3	3109.6	3113.7	3091.8	3067.1
25°	2980.8	3004.1	3017.8	2995.9	2969.9
27.5°	2839.7	2875.3	2916.4	2900.0	2871.2
30°	2682.2	2734.2	2802.7	2789.0	2768.5
32.5°	2532.9	2584.9	2679.4	2674.0	2663.0
35°	2397.3	2430.1	2541.1	2554.8	2545.2
37.5°	2268.5	2298.6	2402.7	2434.2	2426.0
40°	2132.9	2165.8	2247.9	2304.1	2306.8
42.5°	1998.6	2030.1	2097.3	2178.1	2178.1
45°	1856.2	1887.7	1949.3	2038.4	2049.3
47.5°	1716.4	1749.3	1809.6	1898.6	1916.4
50°	1579.5	1609.6	1669.9	1756.2	1783.6
52.5°	1437.0	1469.9	1528.8	1608.2	1647.9
55°	1300.0	1321.9	1386.3	1463.0	1505.5
57.5°	1157.5	1178.1	1250.7	1316.4	1360.3
60°	1020.5	1046.6	1102.7	1169.9	1220.5
62.5°	889.0	916.4	964.4	1023.3	1080.8
65°	761.6	782.2	828.8	887.7	938.4
67.5°	638.4	656.2	702.7	743.8	797.3
70°	513.7	537.0	571.2	611.0	645.2
72.5°	413.7	423.3	452.1	480.8	516.4
75°	305.5	321.9	345.2	361.6	382.2
77.5°	219.2	228.8	242.5	256.2	275.3
80°	146.6	150.7	163.0	165.8	180.8
82.5°	89.0	91.8	94.5	95.9	101.4
85°	47.9	47.9	47.9	45.2	45.2
87.5°	27.4	27.4	23.3	19.2	13.7
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)