

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: P558315

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-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: P558315
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-LD4-3STD-35-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
3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

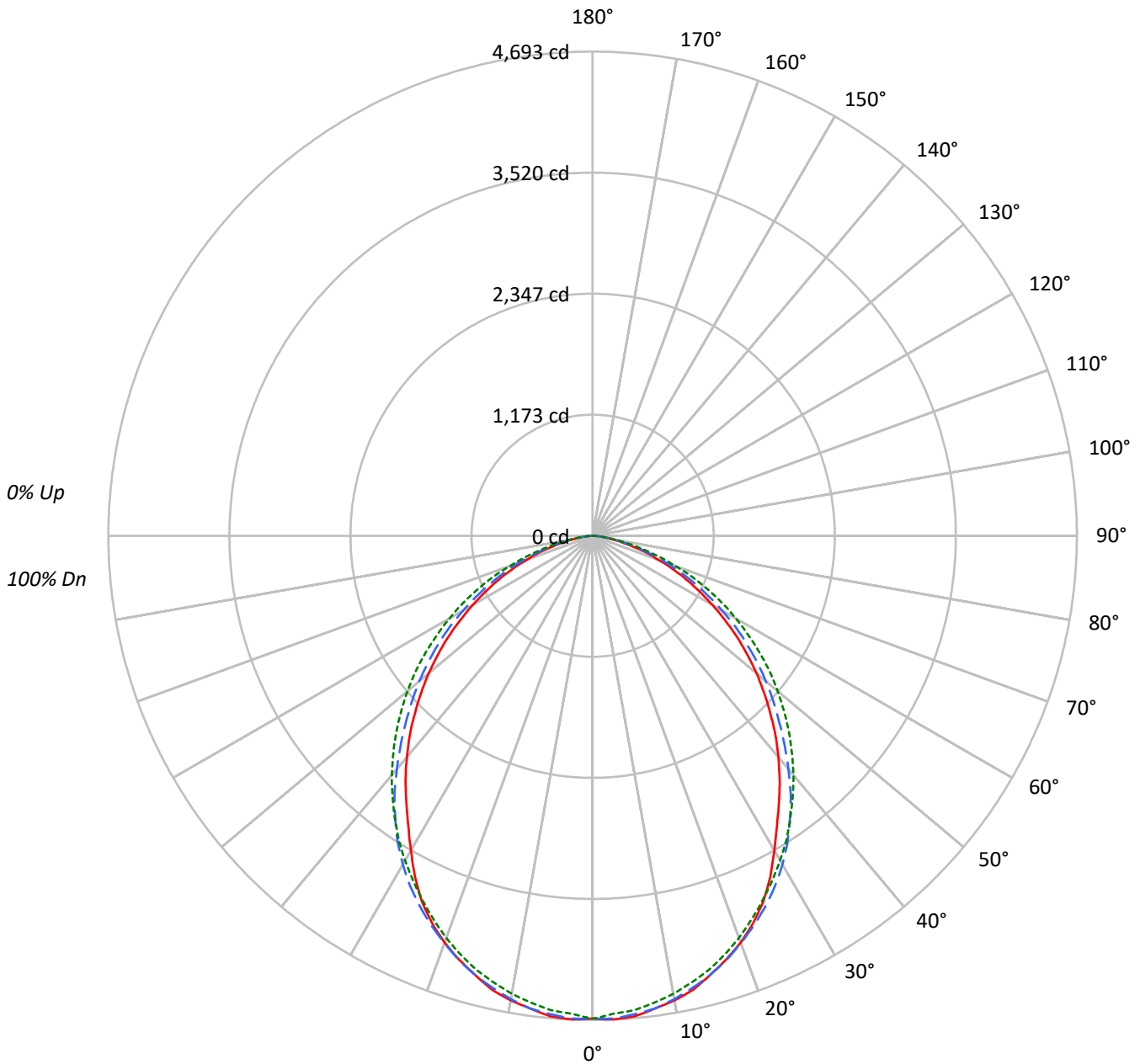
Lumens per Lamp: N/A
Luminaire Lumens: 10823.0 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	12596	12596	12596
5°	12629	12576	12469
10°	12495	12461	12318
15°	12273	12273	12133
20°	12014	12029	11875
25°	11618	11762	11575
30°	10940	11432	11292
35°	10337	10958	10975
40°	9835	10366	10637
45°	9272	9738	10237
50°	8680	9177	9801
55°	8006	8538	9271
60°	7210	7790	8623
65°	6366	6927	7843
70°	5305	5899	6663
75°	4169	4711	5216
80°	2982	3316	3679
85°	1942	1942	1831



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.7	4.1
10°-20°	1238.0	11.4
20°-30°	1809.2	16.7
30°-40°	2053.6	19.0
40°-50°	1982.5	18.3
50°-60°	1635.4	15.1
60°-70°	1089.0	10.1
70°-80°	487.3	4.5
80°-90°	87.2	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°	3487.9	32.2
0°-40°	5541.6	51.2
0°-60°	9159.4	84.6
0°-90°	10823.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10823.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4681	4681	4681	4681	4681	
5°	4675	4674	4656	4630	4616	443
15°	4406	4416	4406	4386	4355	1242
25°	3913	3943	3961	3933	3898	1792
35°	3147	3190	3336	3354	3341	1972
45°	2436	2478	2559	2676	2690	1880
55°	1706	1735	1820	1920	1976	1523
65°	1000	1027	1088	1165	1232	991
75°	401	423	453	475	502	438
85°	63	63	63	59	59	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4680.7	4680.7	4680.7	4680.7	4680.7
2.5°	4693.3	4695.1	4684.3	4655.5	4637.5
5°	4675.3	4673.5	4655.5	4630.3	4615.9
7.5°	4623.1	4626.7	4621.3	4585.4	4565.6
10°	4572.8	4574.6	4560.2	4531.4	4508.0
12.5°	4508.0	4506.2	4486.5	4472.1	4434.3
15°	4405.5	4416.3	4405.5	4385.8	4355.2
17.5°	4306.6	4306.6	4313.8	4279.7	4256.3
20°	4195.2	4200.6	4200.6	4173.6	4146.6
22.5°	4065.7	4081.9	4087.3	4058.5	4026.1
25°	3912.8	3943.4	3961.4	3932.6	3898.5
27.5°	3727.6	3774.4	3828.3	3806.8	3769.0
30°	3520.8	3589.2	3679.1	3661.1	3634.1
32.5°	3324.8	3393.2	3517.2	3510.1	3495.7
35°	3146.8	3190.0	3335.6	3353.6	3341.0
37.5°	2977.8	3017.3	3154.0	3195.4	3184.6
40°	2799.8	2842.9	2950.8	3024.5	3028.1
42.5°	2623.5	2664.9	2753.0	2859.1	2859.1
45°	2436.5	2477.9	2558.8	2675.7	2690.1
47.5°	2253.1	2296.3	2375.4	2492.3	2515.7
50°	2073.3	2112.9	2192.0	2305.3	2341.2
52.5°	1886.3	1929.4	2006.8	2111.1	2163.2
55°	1706.5	1735.2	1819.8	1920.5	1976.2
57.5°	1519.5	1546.4	1641.7	1728.1	1785.6
60°	1339.6	1373.8	1447.5	1535.6	1602.2
62.5°	1167.0	1203.0	1265.9	1343.2	1418.8
65°	999.8	1026.8	1087.9	1165.2	1231.8
67.5°	838.0	861.3	922.5	976.4	1046.5
70°	674.3	704.9	749.8	802.0	846.9
72.5°	543.1	555.6	593.4	631.2	677.9
75°	401.0	422.6	453.1	474.7	501.7
77.5°	287.7	300.3	318.3	336.3	361.4
80°	192.4	197.8	214.0	217.6	237.4
82.5°	116.9	120.5	124.1	125.9	133.1
85°	62.9	62.9	62.9	59.3	59.3
87.5°	36.0	36.0	30.6	25.2	18.0
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)