

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: P558299

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-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: P558299
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-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

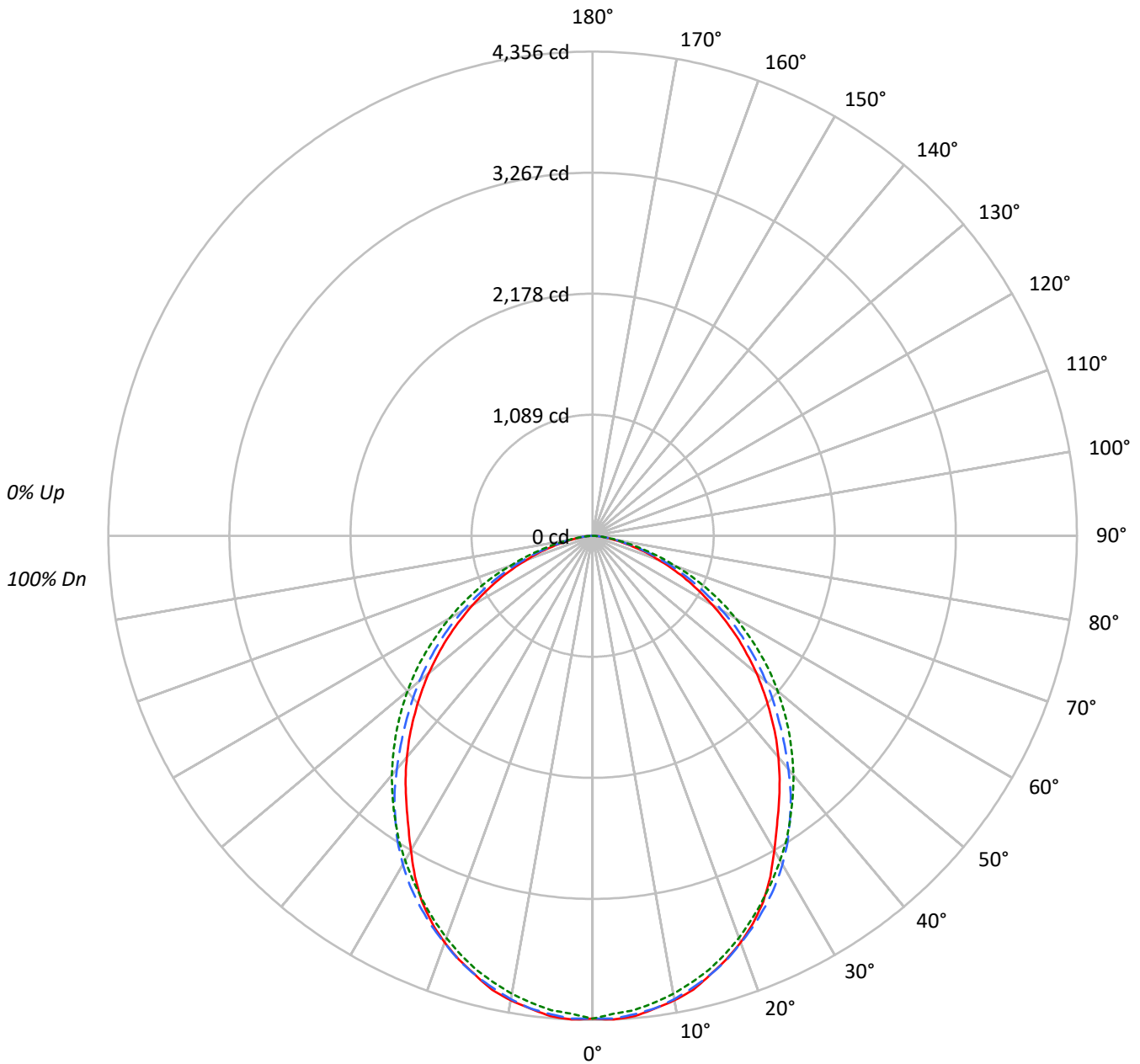
Lumens per Lamp: N/A
Luminaire Lumens: 10045.0 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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					20					
RC	80					70					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°	11690	11690	11690
5°	11721	11672	11572
10°	11597	11565	11433
15°	11391	11391	11261
20°	11150	11164	11021
25°	10783	10916	10743
30°	10154	10610	10481
35°	9594	10170	10187
40°	9128	9621	9873
45°	8606	9038	9501
50°	8056	8517	9097
55°	7431	7924	8605
60°	6691	7231	8003
65°	5908	6429	7279
70°	4924	5475	6185
75°	3870	4373	4841
80°	2768	3078	3414
85°	1803	1803	1701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	409.0	4.1
10°-20°	1149.1	11.4
20°-30°	1679.1	16.7
30°-40°	1906.0	19.0
40°-50°	1840.0	18.3
50°-60°	1517.8	15.1
60°-70°	1010.8	10.1
70°-80°	452.3	4.5
80°-90°	80.9	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°	3237.2	32.2
0°-40°	5143.2	51.2
0°-60°	8501.0	84.6
0°-90°	10045.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10045.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4344	4344	4344	4344	4344	
5°	4339	4338	4321	4298	4284	411
15°	4089	4099	4089	4070	4042	1153
25°	3632	3660	3677	3650	3618	1663
35°	2921	2961	3096	3112	3101	1830
45°	2261	2300	2375	2483	2497	1745
55°	1584	1610	1689	1782	1834	1414
65°	928	953	1010	1082	1143	920
75°	372	392	421	441	466	407
85°	58	58	58	55	55	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4344.2	4344.2	4344.2	4344.2	4344.2
2.5°	4355.9	4357.6	4347.5	4320.8	4304.1
5°	4339.2	4337.5	4320.8	4297.5	4284.1
7.5°	4290.8	4294.1	4289.1	4255.8	4237.4
10°	4244.1	4245.7	4232.4	4205.7	4184.0
12.5°	4184.0	4182.3	4164.0	4150.6	4115.6
15°	4088.9	4098.9	4088.9	4070.5	4042.1
17.5°	3997.1	3997.1	4003.7	3972.0	3950.3
20°	3893.6	3898.6	3898.6	3873.6	3848.5
22.5°	3773.4	3788.5	3793.5	3766.8	3736.7
25°	3631.6	3659.9	3676.6	3649.9	3618.2
27.5°	3459.7	3503.1	3553.1	3533.1	3498.1
30°	3267.7	3331.2	3414.6	3397.9	3372.9
32.5°	3085.8	3149.3	3264.4	3257.7	3244.4
35°	2920.6	2960.7	3095.8	3112.5	3100.9
37.5°	2763.7	2800.5	2927.3	2965.7	2955.7
40°	2598.5	2638.6	2738.7	2807.1	2810.5
42.5°	2435.0	2473.3	2555.1	2653.6	2653.6
45°	2261.4	2299.8	2374.9	2483.4	2496.7
47.5°	2091.2	2131.2	2204.6	2313.1	2334.8
50°	1924.3	1961.0	2034.4	2139.6	2172.9
52.5°	1750.7	1790.8	1862.5	1959.3	2007.7
55°	1583.8	1610.5	1688.9	1782.4	1834.1
57.5°	1410.2	1435.3	1523.7	1603.8	1657.2
60°	1243.3	1275.1	1343.5	1425.3	1487.0
62.5°	1083.1	1116.5	1174.9	1246.7	1316.8
65°	927.9	953.0	1009.7	1081.5	1143.2
67.5°	777.7	799.4	856.2	906.2	971.3
70°	625.8	654.2	695.9	744.3	786.1
72.5°	504.0	515.7	550.7	585.8	629.2
75°	372.2	392.2	420.6	440.6	465.6
77.5°	267.0	278.7	295.4	312.1	335.5
80°	178.6	183.6	198.6	201.9	220.3
82.5°	108.5	111.8	115.2	116.8	123.5
85°	58.4	58.4	58.4	55.1	55.1
87.5°	33.4	33.4	28.4	23.4	16.7
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)