

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: P558401

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-81-84-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: P558401
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-50-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

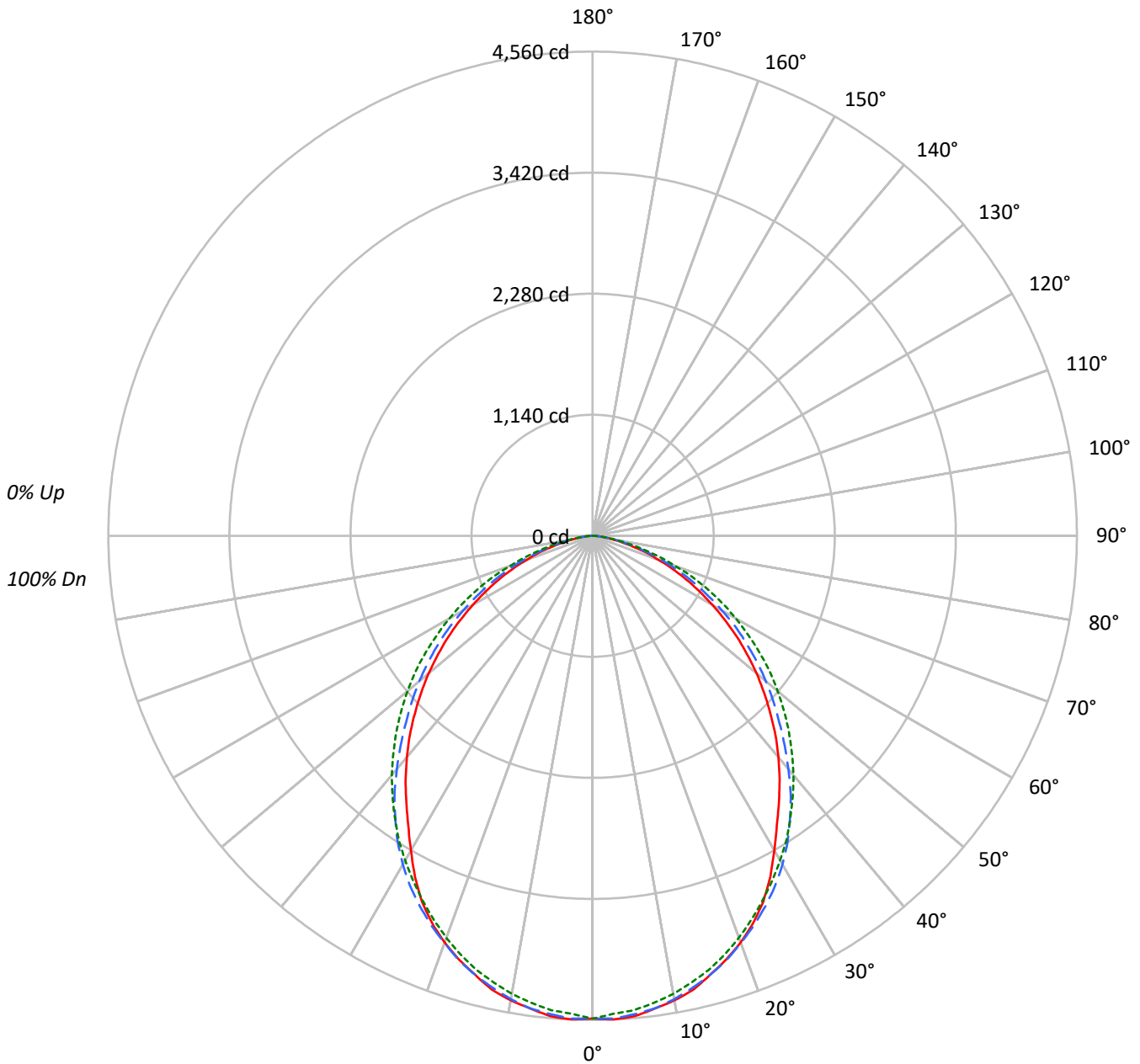
Lumens per Lamp: N/A
Luminaire Lumens: 10515.0 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (Ain): 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°	12237	12237	12237
5°	12270	12218	12114
10°	12139	12106	11968
15°	11924	11924	11788
20°	11672	11687	11537
25°	11287	11427	11246
30°	10629	11107	10971
35°	10043	10646	10663
40°	9555	10071	10335
45°	9009	9461	9946
50°	8433	8915	9522
55°	7778	8295	9008
60°	7005	7569	8378
65°	6185	6730	7620
70°	5154	5732	6474
75°	4051	4577	5068
80°	2896	3222	3574
85°	1886	1886	1782



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.2	4.1
10°-20°	1202.8	11.4
20°-30°	1757.7	16.7
30°-40°	1995.2	19.0
40°-50°	1926.1	18.3
50°-60°	1588.9	15.1
60°-70°	1058.0	10.1
70°-80°	473.5	4.5
80°-90°	84.7	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°	3388.7	32.2
0°-40°	5383.9	51.2
0°-60°	8898.8	84.6
0°-90°	10515.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10515.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4548	4548	4548	4548	4548	
5°	4542	4540	4523	4498	4485	430
15°	4280	4291	4280	4261	4231	1207
25°	3802	3831	3849	3821	3788	1741
35°	3057	3099	3241	3258	3246	1916
45°	2367	2407	2486	2600	2614	1826
55°	1658	1686	1768	1866	1920	1480
65°	971	998	1057	1132	1197	963
75°	390	410	440	461	487	426
85°	61	61	61	58	58	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4547.5	4547.5	4547.5	4547.5	4547.5
2.5°	4559.7	4561.4	4551.0	4523.0	4505.5
5°	4542.2	4540.5	4523.0	4498.5	4484.6
7.5°	4491.6	4495.1	4489.8	4454.9	4435.7
10°	4442.6	4444.4	4430.4	4402.5	4379.8
12.5°	4379.8	4378.0	4358.8	4344.8	4308.1
15°	4280.2	4290.7	4280.2	4261.0	4231.3
17.5°	4184.1	4184.1	4191.1	4157.9	4135.2
20°	4075.8	4081.0	4081.0	4054.8	4028.6
22.5°	3950.0	3965.7	3971.0	3943.0	3911.6
25°	3801.5	3831.2	3848.7	3820.7	3787.5
27.5°	3621.6	3667.0	3719.4	3698.4	3661.7
30°	3420.6	3487.0	3574.4	3556.9	3530.7
32.5°	3230.2	3296.6	3417.2	3410.2	3396.2
35°	3057.3	3099.2	3240.7	3258.2	3245.9
37.5°	2893.0	2931.5	3064.3	3104.4	3094.0
40°	2720.1	2762.0	2866.8	2938.5	2942.0
42.5°	2548.9	2589.1	2674.7	2777.7	2777.7
45°	2367.2	2407.4	2486.0	2599.6	2613.5
47.5°	2189.0	2230.9	2307.8	2421.4	2444.1
50°	2014.3	2052.7	2129.6	2239.7	2274.6
52.5°	1832.6	1874.5	1949.7	2051.0	2101.7
55°	1657.9	1685.9	1768.0	1865.8	1920.0
57.5°	1476.2	1502.4	1595.0	1678.9	1734.8
60°	1301.5	1334.7	1406.3	1491.9	1556.6
62.5°	1133.8	1168.7	1229.9	1305.0	1378.4
65°	971.3	997.5	1056.9	1132.1	1196.7
67.5°	814.1	836.8	896.2	948.6	1016.8
70°	655.1	684.8	728.5	779.2	822.8
72.5°	527.6	539.8	576.5	613.2	658.6
75°	389.6	410.5	440.2	461.2	487.4
77.5°	279.5	291.8	309.2	326.7	351.1
80°	186.9	192.2	207.9	211.4	230.6
82.5°	113.6	117.0	120.5	122.3	129.3
85°	61.1	61.1	61.1	57.7	57.7
87.5°	34.9	34.9	29.7	24.5	17.5
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)