

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: P557901

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-96-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: P557901
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-LD4-3HI-50-UNV-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

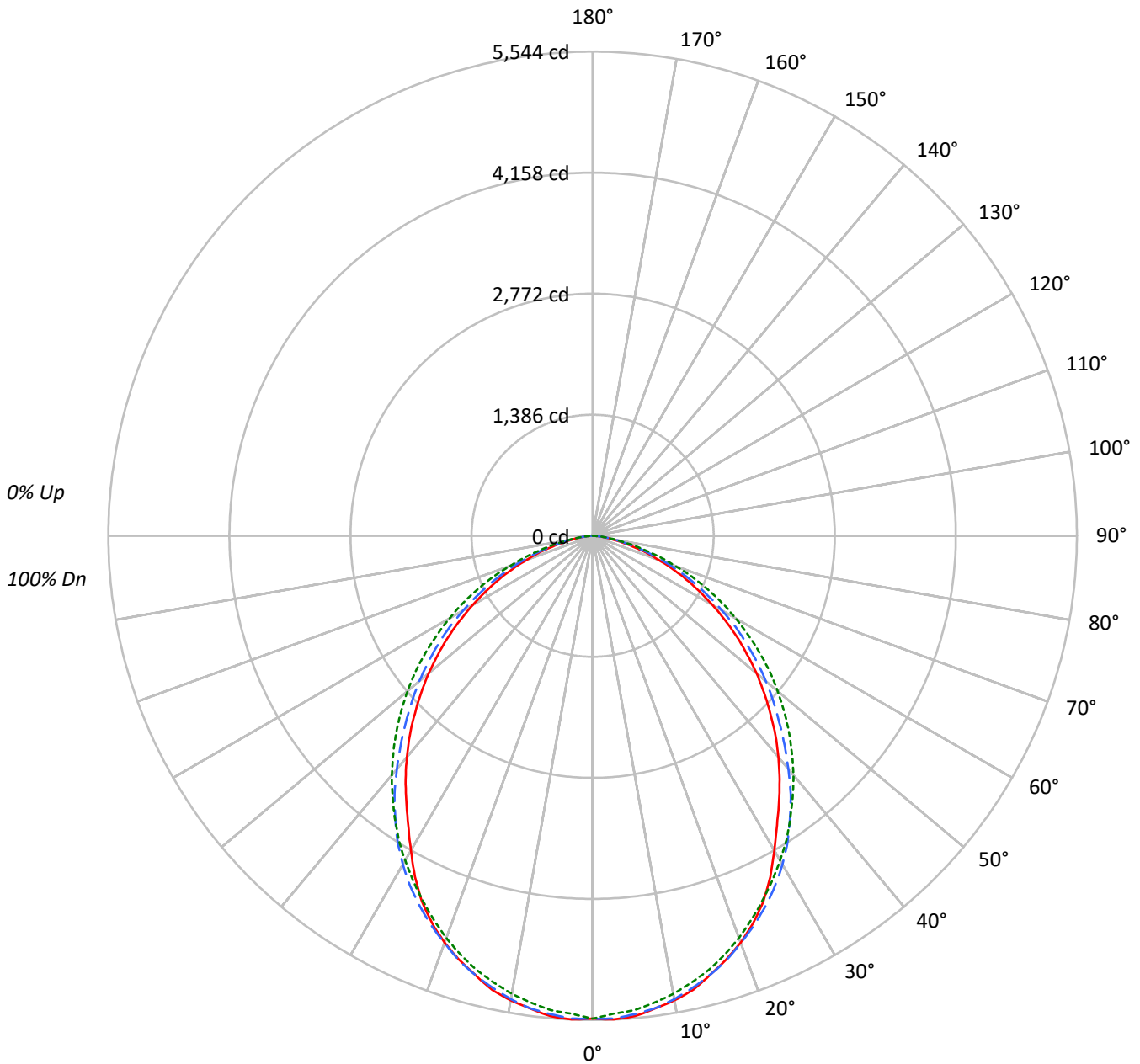
Lumens per Lamp: N/A
Luminaire Lumens: 12785.0 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	14879	14879	14879
5°	14919	14855	14729
10°	14760	14720	14551
15°	14498	14498	14333
20°	14192	14210	14027
25°	13724	13894	13674
30°	12923	13504	13339
35°	12212	12944	12965
40°	11618	12245	12566
45°	10953	11503	12093
50°	10253	10840	11578
55°	9457	10085	10952
60°	8517	9203	10186
65°	7520	8183	9265
70°	6268	6969	7872
75°	4925	5566	6161
80°	3522	3918	4345
85°	2294	2294	2164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	520.6	4.1
10°-20°	1462.5	11.4
20°-30°	2137.2	16.7
30°-40°	2425.9	19.0
40°-50°	2341.8	18.3
50°-60°	1931.9	15.1
60°-70°	1286.5	10.1
70°-80°	575.7	4.5
80°-90°	103.0	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°	4120.2	32.2
0°-40°	6546.2	51.2
0°-60°	10819.9	84.6
0°-90°	12785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12785.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5529	5529	5529	5529	5529	
5°	5523	5521	5499	5470	5453	523
15°	5204	5217	5204	5181	5145	1467
25°	4622	4658	4680	4646	4605	2117
35°	3717	3768	3940	3962	3947	2329
45°	2878	2927	3023	3161	3178	2221
55°	2016	2050	2150	2269	2334	1799
65°	1181	1213	1285	1376	1455	1171
75°	474	499	535	561	593	518
85°	74	74	74	70	70	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5529.2	5529.2	5529.2	5529.2	5529.2
2.5°	5544.1	5546.2	5533.4	5499.4	5478.2
5°	5522.8	5520.7	5499.4	5469.7	5452.7
7.5°	5461.2	5465.5	5459.1	5416.6	5393.2
10°	5401.7	5403.9	5386.9	5352.9	5325.3
12.5°	5325.3	5323.1	5299.8	5282.8	5238.2
15°	5204.2	5216.9	5204.2	5180.8	5144.7
17.5°	5087.4	5087.4	5095.9	5055.5	5027.9
20°	4955.7	4962.0	4962.0	4930.2	4898.3
22.5°	4802.7	4821.8	4828.2	4794.2	4756.0
25°	4622.2	4658.3	4679.5	4645.5	4605.2
27.5°	4403.4	4458.6	4522.3	4496.8	4452.2
30°	4159.1	4239.8	4346.0	4324.8	4292.9
32.5°	3927.6	4008.3	4154.9	4146.4	4129.4
35°	3717.3	3768.3	3940.3	3961.6	3946.7
37.5°	3517.6	3564.3	3725.8	3774.6	3761.9
40°	3307.3	3358.3	3485.7	3572.8	3577.1
42.5°	3099.1	3148.0	3252.1	3377.4	3377.4
45°	2878.2	2927.1	3022.7	3160.7	3177.7
47.5°	2661.6	2712.5	2806.0	2944.1	2971.7
50°	2449.2	2495.9	2589.3	2723.2	2765.7
52.5°	2228.2	2279.2	2370.6	2493.8	2555.4
55°	2015.8	2049.8	2149.6	2268.6	2334.4
57.5°	1794.9	1826.8	1939.4	2041.3	2109.3
60°	1582.5	1622.9	1709.9	1814.0	1892.6
62.5°	1378.6	1421.1	1495.4	1586.7	1676.0
65°	1181.0	1212.9	1285.1	1376.5	1455.0
67.5°	989.9	1017.5	1089.7	1153.4	1236.3
70°	796.6	832.7	885.8	947.4	1000.5
72.5°	641.5	656.4	701.0	745.6	800.8
75°	473.7	499.2	535.3	560.8	592.6
77.5°	339.9	354.7	376.0	397.2	427.0
80°	227.3	233.7	252.8	257.0	280.4
82.5°	138.1	142.3	146.6	148.7	157.2
85°	74.3	74.3	74.3	70.1	70.1
87.5°	42.5	42.5	36.1	29.7	21.2
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)