

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: P557895

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-87-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: P557895
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-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

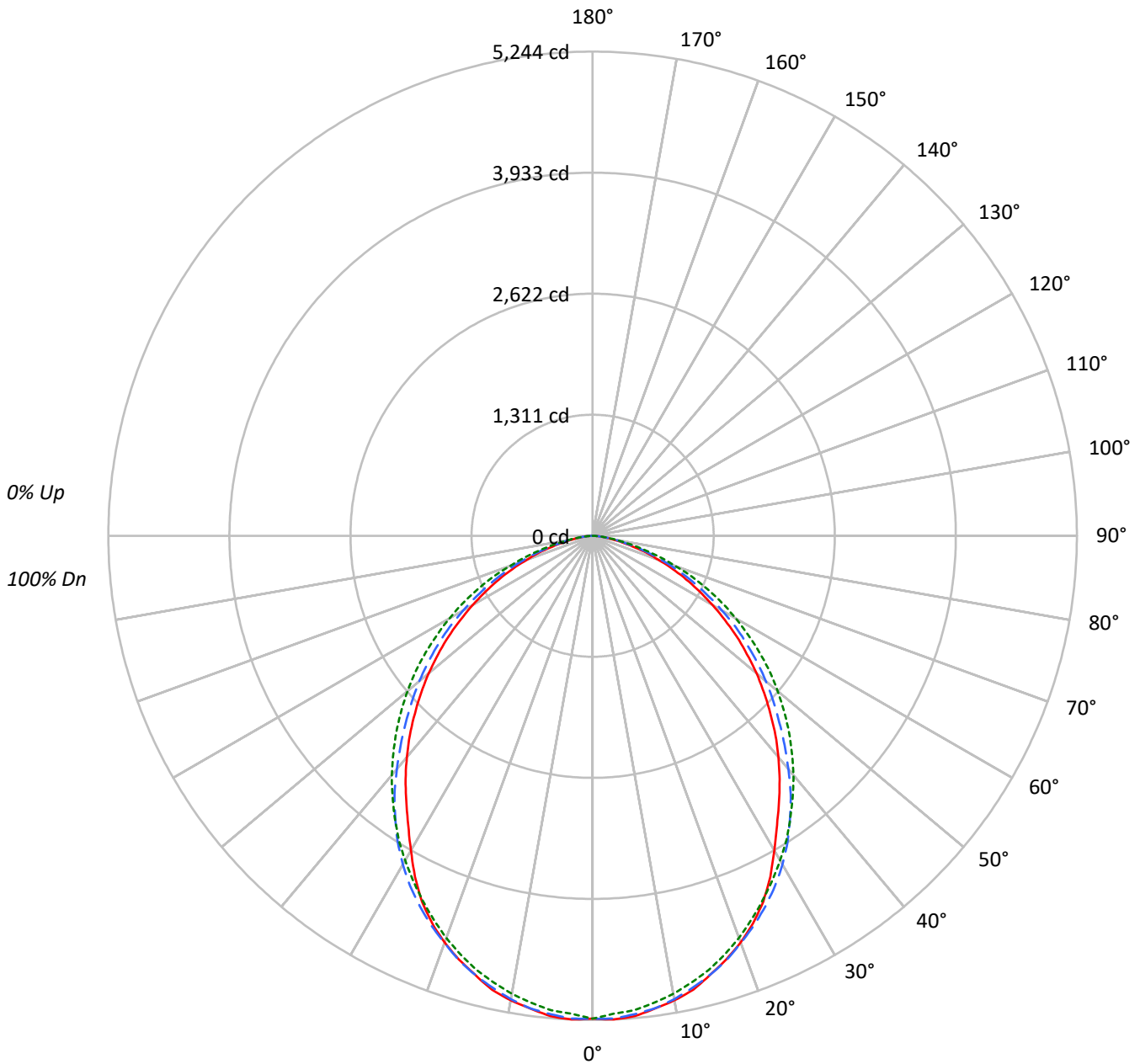
Lumens per Lamp: N/A
Luminaire Lumens: 12093.0 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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

TEST NUMBER: P557895

CATALOG NUMBER: FUSL-12-4-LD4-3HI-50-UNV-81-87-EDD

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°	14074	14074	14074
5°	14111	14051	13932
10°	13961	13923	13764
15°	13714	13714	13557
20°	13423	13441	13268
25°	12981	13142	12933
30°	12224	12773	12617
35°	11551	12243	12264
40°	10989	11582	11886
45°	10360	10881	11439
50°	9698	10253	10952
55°	8945	9539	10359
60°	8056	8705	9635
65°	7113	7740	8763
70°	5928	6592	7445
75°	4658	5264	5829
80°	3332	3705	4110
85°	2171	2171	2047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	492.4	4.1
10°-20°	1383.3	11.4
20°-30°	2021.5	16.7
30°-40°	2294.6	19.0
40°-50°	2215.1	18.3
50°-60°	1827.3	15.1
60°-70°	1216.8	10.1
70°-80°	544.5	4.5
80°-90°	97.4	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°	3897.2	32.2
0°-40°	6191.8	51.2
0°-60°	10234.2	84.6
0°-90°	12093.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12093.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5230	5230	5230	5230	5230	
5°	5224	5222	5202	5174	5158	494
15°	4922	4935	4922	4900	4866	1388
25°	4372	4406	4426	4394	4356	2002
35°	3516	3564	3727	3747	3733	2203
45°	2722	2769	2859	2990	3006	2101
55°	1907	1939	2033	2146	2208	1702
65°	1117	1147	1216	1302	1376	1108
75°	448	472	506	530	561	490
85°	70	70	70	66	66	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5229.9	5229.9	5229.9	5229.9	5229.9
2.5°	5244.0	5246.0	5233.9	5201.8	5181.7
5°	5223.9	5221.9	5201.8	5173.7	5157.6
7.5°	5165.6	5169.6	5163.6	5123.4	5101.3
10°	5109.4	5111.4	5095.3	5063.1	5037.0
12.5°	5037.0	5035.0	5012.9	4996.8	4954.7
15°	4922.5	4934.6	4922.5	4900.4	4866.2
17.5°	4812.0	4812.0	4820.0	4781.9	4755.7
20°	4687.4	4693.5	4693.5	4663.3	4633.2
22.5°	4542.8	4560.9	4566.9	4534.7	4498.6
25°	4372.0	4406.1	4426.2	4394.1	4355.9
27.5°	4165.0	4217.3	4277.6	4253.4	4211.3
30°	3934.0	4010.3	4110.8	4090.7	4060.6
32.5°	3715.0	3791.3	3930.0	3921.9	3905.9
35°	3516.1	3564.3	3727.0	3747.1	3733.1
37.5°	3327.2	3371.4	3524.1	3570.3	3558.3
40°	3128.3	3176.5	3297.1	3379.5	3383.5
42.5°	2931.4	2977.6	3076.1	3194.6	3194.6
45°	2722.4	2768.7	2859.1	2989.7	3005.7
47.5°	2517.5	2565.7	2654.1	2784.7	2810.9
50°	2316.6	2360.8	2449.2	2575.8	2616.0
52.5°	2107.6	2155.9	2242.3	2358.8	2417.1
55°	1906.7	1938.9	2033.3	2145.8	2208.1
57.5°	1697.8	1727.9	1834.4	1930.8	1995.1
60°	1496.8	1535.0	1617.4	1715.8	1790.2
62.5°	1304.0	1344.1	1414.5	1500.9	1585.2
65°	1117.1	1147.2	1215.6	1302.0	1376.3
67.5°	936.3	962.4	1030.7	1091.0	1169.3
70°	753.4	787.6	837.8	896.1	946.3
72.5°	606.8	620.8	663.0	705.2	757.5
75°	448.0	472.2	506.3	530.4	560.6
77.5°	321.5	335.5	355.6	375.7	403.8
80°	215.0	221.0	239.1	243.1	265.2
82.5°	130.6	134.6	138.6	140.6	148.7
85°	70.3	70.3	70.3	66.3	66.3
87.5°	40.2	40.2	34.2	28.1	20.1
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)