

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: P557863

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-93-87-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: P557863
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-40-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

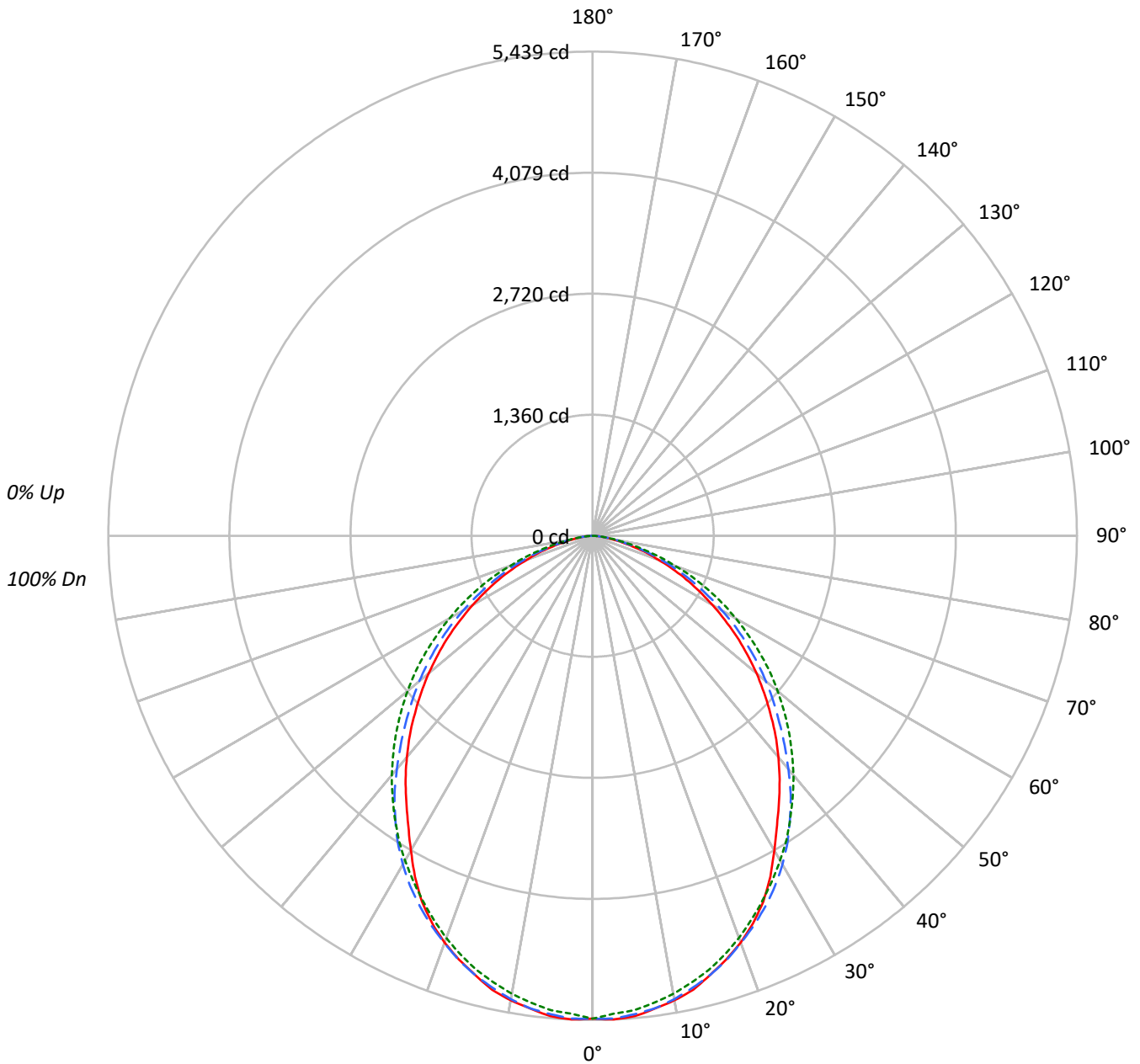
Lumens per Lamp: N/A
Luminaire Lumens: 12543.0 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557863

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-93-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P557863

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-93-87-EDD

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°	14597	14597	14597
5°	14636	14574	14450
10°	14481	14441	14276
15°	14224	14224	14061
20°	13923	13941	13762
25°	13464	13631	13415
30°	12679	13249	13087
35°	11980	12699	12720
40°	11398	12013	12328
45°	10746	11286	11864
50°	10059	10635	11359
55°	9279	9895	10745
60°	8355	9029	9993
65°	7378	8028	9089
70°	6149	6837	7722
75°	4832	5461	6045
80°	3456	3843	4263
85°	2251	2251	2124



TEST NUMBER: P557863

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-93-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	510.7	4.1
10°-20°	1434.8	11.4
20°-30°	2096.7	16.7
30°-40°	2380.0	19.0
40°-50°	2297.5	18.3
50°-60°	1895.3	15.1
60°-70°	1262.1	10.1
70°-80°	564.8	4.5
80°-90°	101.0	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°	4042.3	32.2
0°-40°	6422.3	51.2
0°-60°	10615.1	84.6
0°-90°	12543.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12543.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5424	5424	5424	5424	5424	
5°	5418	5416	5395	5366	5350	513
15°	5106	5118	5106	5083	5047	1439
25°	4535	4570	4591	4558	4518	2077
35°	3647	3697	3866	3887	3872	2285
45°	2824	2872	2966	3101	3118	2179
55°	1978	2011	2109	2226	2290	1765
65°	1159	1190	1261	1350	1428	1149
75°	465	490	525	550	581	508
85°	73	73	73	69	69	98
90°	0	0	0	0	0	



TEST NUMBER: P557863

CATALOG NUMBER: FUSL-12-4-LD4-3HI-40-UNV-93-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5424.5	5424.5	5424.5	5424.5	5424.5
2.5°	5439.1	5441.2	5428.7	5395.3	5374.5
5°	5418.3	5416.2	5395.3	5366.2	5349.5
7.5°	5357.8	5362.0	5355.8	5314.1	5291.2
10°	5299.5	5301.6	5284.9	5251.6	5224.5
12.5°	5224.5	5222.4	5199.5	5182.8	5139.0
15°	5105.7	5118.2	5105.7	5082.8	5047.3
17.5°	4991.1	4991.1	4999.4	4959.8	4932.7
20°	4861.9	4868.1	4868.1	4836.8	4805.6
22.5°	4711.8	4730.6	4736.8	4703.5	4666.0
25°	4534.7	4570.1	4590.9	4557.6	4518.0
27.5°	4320.0	4374.2	4436.7	4411.7	4368.0
30°	4080.4	4159.6	4263.8	4242.9	4211.7
32.5°	3853.2	3932.4	4076.2	4067.9	4051.2
35°	3646.9	3696.9	3865.7	3886.6	3872.0
37.5°	3451.0	3496.9	3655.2	3703.2	3690.7
40°	3244.7	3294.7	3419.8	3505.2	3509.4
42.5°	3040.5	3088.4	3190.5	3313.5	3313.5
45°	2823.8	2871.7	2965.5	3100.9	3117.6
47.5°	2611.2	2661.2	2752.9	2888.4	2915.4
50°	2402.8	2448.6	2540.3	2671.6	2713.3
52.5°	2186.1	2236.1	2325.7	2446.6	2507.0
55°	1977.7	2011.0	2109.0	2225.7	2290.3
57.5°	1760.9	1792.2	1902.6	2002.7	2069.4
60°	1552.5	1592.1	1677.6	1779.7	1856.8
62.5°	1352.5	1394.2	1467.1	1556.7	1644.2
65°	1158.7	1189.9	1260.8	1350.4	1427.5
67.5°	971.1	998.2	1069.1	1131.6	1212.9
70°	781.5	816.9	869.0	929.4	981.5
72.5°	629.4	643.9	687.7	731.5	785.6
75°	464.7	489.7	525.2	550.2	581.4
77.5°	333.4	348.0	368.9	389.7	418.9
80°	223.0	229.2	248.0	252.2	275.1
82.5°	135.5	139.6	143.8	145.9	154.2
85°	72.9	72.9	72.9	68.8	68.8
87.5°	41.7	41.7	35.4	29.2	20.8
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)