

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: P556874

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-81-94-EDD-90**

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: P556874
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-LD4-1STD-50-UNV-81-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

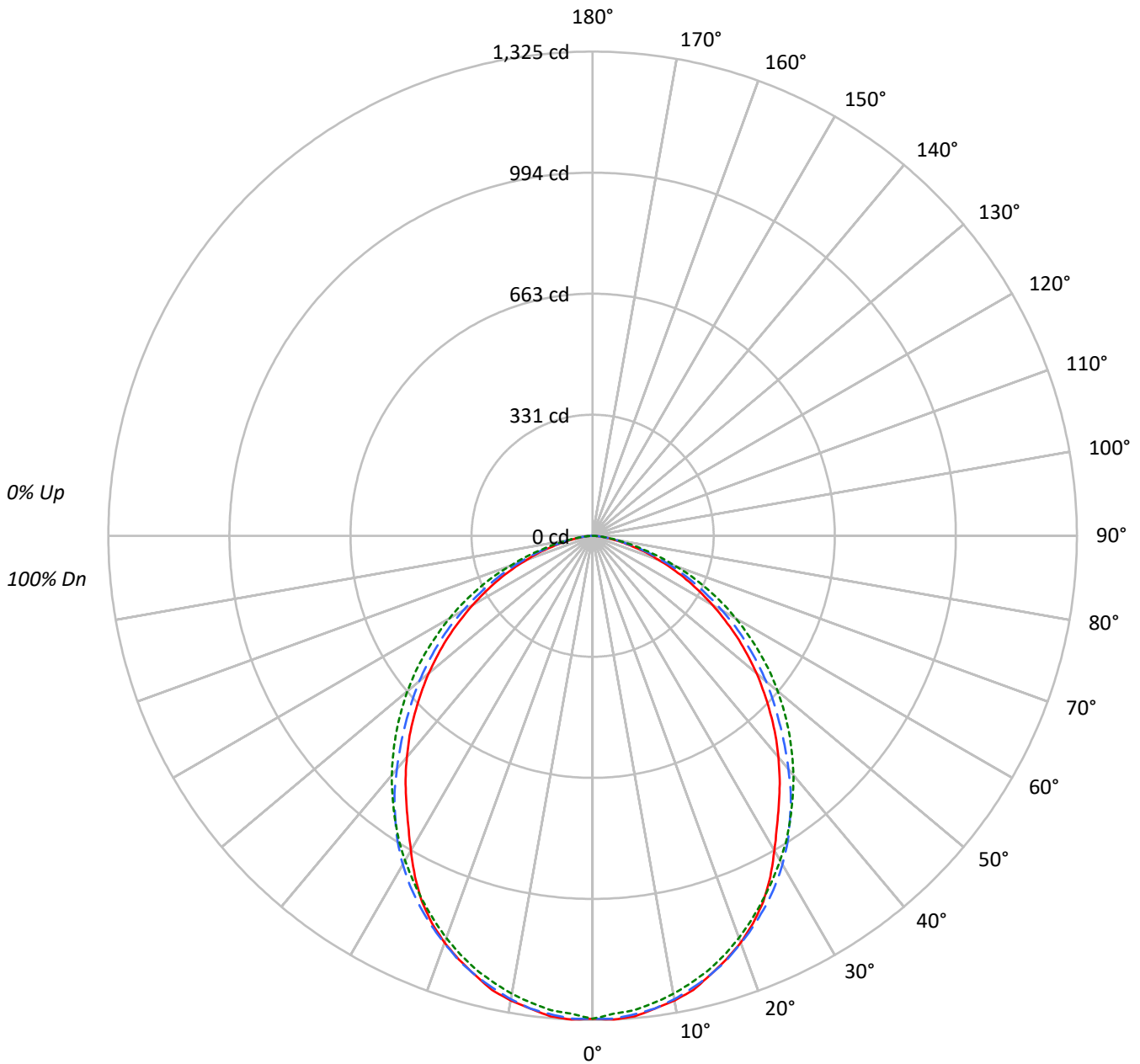
Lumens per Lamp: N/A
Luminaire Lumens: 3056.0 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P556874

CATALOG NUMBER: FUSL-12-4-LD4-1STD-50-UNV-81-94-EDD-90

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°	3556	3556	3556
5°	3566	3551	3521
10°	3528	3518	3478
15°	3466	3466	3426
20°	3392	3397	3353
25°	3280	3321	3268
30°	3089	3228	3188
35°	2919	3094	3099
40°	2777	2927	3003
45°	2618	2750	2891
50°	2451	2591	2768
55°	2260	2411	2618
60°	2036	2200	2435
65°	1798	1956	2215
70°	1498	1666	1881
75°	1177	1330	1473
80°	841	936	1038
85°	550	550	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.4	4.1
10°-20°	349.6	11.4
20°-30°	510.8	16.7
30°-40°	579.9	19.0
40°-50°	559.8	18.3
50°-60°	461.8	15.1
60°-70°	307.5	10.1
70°-80°	137.6	4.5
80°-90°	24.6	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°	984.9	32.2
0°-40°	1564.7	51.2
0°-60°	2586.3	84.6
0°-90°	3056.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3056.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1322	1322	1322	1322	1322	
5°	1320	1320	1314	1307	1303	125
15°	1244	1247	1244	1238	1230	351
25°	1105	1114	1118	1110	1101	506
35°	888	901	942	947	943	557
45°	688	700	722	756	760	531
55°	482	490	514	542	558	430
65°	282	290	307	329	348	280
75°	113	119	128	134	142	124
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1321.6	1321.6	1321.6	1321.6	1321.6
2.5°	1325.2	1325.7	1322.7	1314.5	1309.5
5°	1320.1	1319.6	1314.5	1307.4	1303.4
7.5°	1305.4	1306.4	1304.9	1294.7	1289.1
10°	1291.2	1291.7	1287.6	1279.5	1272.9
12.5°	1272.9	1272.4	1266.8	1262.7	1252.1
15°	1244.0	1247.0	1244.0	1238.4	1229.7
17.5°	1216.0	1216.0	1218.1	1208.4	1201.8
20°	1184.6	1186.1	1186.1	1178.5	1170.8
22.5°	1148.0	1152.6	1154.1	1146.0	1136.8
25°	1104.8	1113.5	1118.5	1110.4	1100.8
27.5°	1052.5	1065.7	1081.0	1074.9	1064.2
30°	994.2	1013.4	1038.8	1033.8	1026.1
32.5°	938.8	958.1	993.1	991.1	987.0
35°	888.5	900.7	941.9	946.9	943.4
37.5°	840.8	852.0	890.6	902.2	899.2
40°	790.5	802.7	833.2	854.0	855.0
42.5°	740.8	752.5	777.3	807.3	807.3
45°	688.0	699.7	722.5	755.5	759.6
47.5°	636.2	648.4	670.7	703.7	710.3
50°	585.4	596.6	618.9	650.9	661.1
52.5°	532.6	544.8	566.6	596.1	610.8
55°	481.8	490.0	513.8	542.3	558.0
57.5°	429.0	436.7	463.6	487.9	504.2
60°	378.3	387.9	408.7	433.6	452.4
62.5°	329.5	339.7	357.4	379.3	400.6
65°	282.3	289.9	307.2	329.0	347.8
67.5°	236.6	243.2	260.5	275.7	295.5
70°	190.4	199.0	211.7	226.5	239.1
72.5°	153.3	156.9	167.6	178.2	191.4
75°	113.2	119.3	127.9	134.0	141.7
77.5°	81.2	84.8	89.9	94.9	102.1
80°	54.3	55.9	60.4	61.4	67.0
82.5°	33.0	34.0	35.0	35.5	37.6
85°	17.8	17.8	17.8	16.8	16.8
87.5°	10.2	10.2	8.6	7.1	5.1
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)