

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: P556354

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-81-85-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: P556354
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-LD4-1HI-50-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

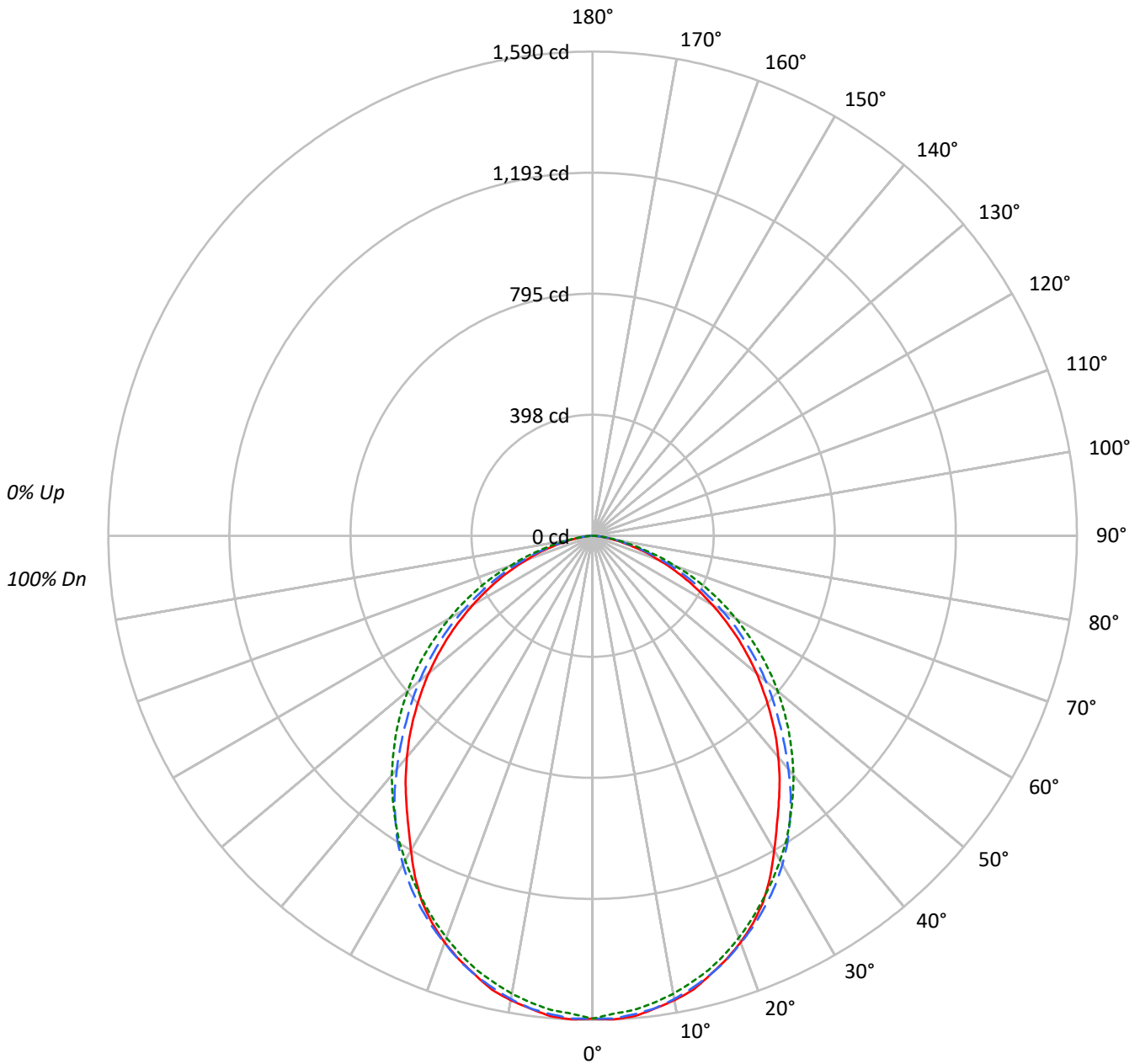
Lumens per Lamp: N/A
Luminaire Lumens: 3666.0 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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: P556354

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-81-85-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°	4267	4267	4267
5°	4278	4260	4223
10°	4232	4221	4173
15°	4157	4157	4110
20°	4069	4074	4022
25°	3935	3984	3921
30°	3706	3872	3825
35°	3502	3712	3718
40°	3331	3511	3603
45°	3141	3298	3468
50°	2940	3108	3320
55°	2712	2892	3141
60°	2442	2639	2921
65°	2157	2346	2656
70°	1797	1998	2257
75°	1412	1596	1766
80°	1010	1124	1246
85°	658	658	621



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.3	4.1
10°-20°	419.4	11.4
20°-30°	612.8	16.7
30°-40°	695.6	19.0
40°-50°	671.5	18.3
50°-60°	553.9	15.1
60°-70°	368.9	10.1
70°-80°	165.1	4.5
80°-90°	29.5	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°	1181.4	32.2
0°-40°	1877.1	51.2
0°-60°	3102.5	84.6
0°-90°	3666.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3666.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1586	1586	1586	1586	1586	
5°	1584	1583	1577	1568	1564	150
15°	1492	1496	1492	1486	1475	421
25°	1325	1336	1342	1332	1320	607
35°	1066	1080	1130	1136	1132	668
45°	825	839	867	906	911	637
55°	578	588	616	650	669	516
65°	339	348	368	395	417	336
75°	136	143	154	161	170	149
85°	21	21	21	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1585.5	1585.5	1585.5	1585.5	1585.5
2.5°	1589.7	1590.3	1586.7	1576.9	1570.8
5°	1583.6	1583.0	1576.9	1568.4	1563.5
7.5°	1566.0	1567.2	1565.4	1553.2	1546.5
10°	1548.9	1549.5	1544.6	1534.9	1527.0
12.5°	1527.0	1526.4	1519.7	1514.8	1502.0
15°	1492.3	1495.9	1492.3	1485.6	1475.2
17.5°	1458.8	1458.8	1461.2	1449.6	1441.7
20°	1421.0	1422.8	1422.8	1413.7	1404.6
22.5°	1377.1	1382.6	1384.5	1374.7	1363.7
25°	1325.4	1335.7	1341.8	1332.1	1320.5
27.5°	1262.6	1278.5	1296.7	1289.4	1276.6
30°	1192.6	1215.7	1246.2	1240.1	1231.0
32.5°	1126.2	1149.3	1191.4	1188.9	1184.1
35°	1065.9	1080.5	1129.9	1135.9	1131.7
37.5°	1008.6	1022.0	1068.3	1082.3	1078.7
40°	948.3	963.0	999.5	1024.5	1025.7
42.5°	888.7	902.7	932.5	968.4	968.4
45°	825.3	839.3	866.7	906.3	911.2
47.5°	763.2	777.8	804.6	844.2	852.1
50°	702.3	715.7	742.5	780.8	793.0
52.5°	638.9	653.5	679.7	715.1	732.7
55°	578.0	587.8	616.4	650.5	669.4
57.5°	514.7	523.8	556.1	585.3	604.8
60°	453.8	465.3	490.3	520.2	542.7
62.5°	395.3	407.5	428.8	455.0	480.6
65°	338.7	347.8	368.5	394.7	417.2
67.5°	283.8	291.8	312.5	330.7	354.5
70°	228.4	238.8	254.0	271.7	286.9
72.5°	183.9	188.2	201.0	213.8	229.6
75°	135.8	143.1	153.5	160.8	169.9
77.5°	97.5	101.7	107.8	113.9	122.4
80°	65.2	67.0	72.5	73.7	80.4
82.5°	39.6	40.8	42.0	42.6	45.1
85°	21.3	21.3	21.3	20.1	20.1
87.5°	12.2	12.2	10.4	8.5	6.1
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)