

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: P556177

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-82-84-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: P556177
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-30-UNV-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

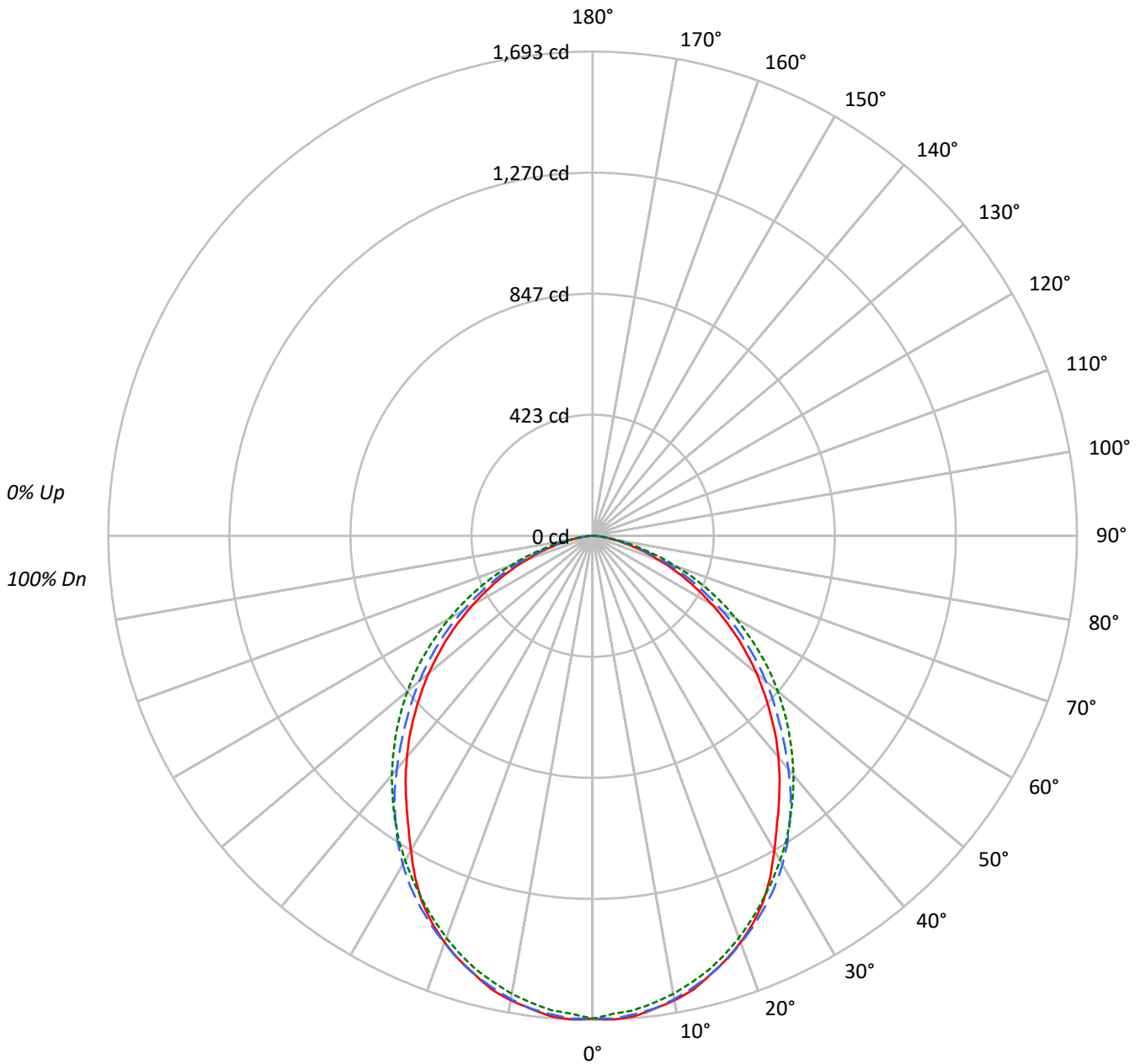
Lumens per Lamp: N/A
Luminaire Lumens: 3904.0 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556177

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-82-84-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°	4543	4543	4543
5°	4555	4536	4498
10°	4507	4495	4443
15°	4427	4427	4377
20°	4333	4339	4283
25°	4191	4243	4175
30°	3946	4124	4073
35°	3729	3953	3959
40°	3548	3739	3837
45°	3345	3513	3693
50°	3131	3310	3535
55°	2888	3080	3344
60°	2601	2810	3110
65°	2296	2499	2829
70°	1913	2128	2404
75°	1503	1700	1882
80°	1075	1196	1327
85°	701	701	661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.0	4.1
10°-20°	446.6	11.4
20°-30°	652.6	16.7
30°-40°	740.8	19.0
40°-50°	715.1	18.3
50°-60°	589.9	15.1
60°-70°	392.8	10.1
70°-80°	175.8	4.5
80°-90°	31.5	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°	1258.1	32.2
0°-40°	1998.9	51.2
0°-60°	3303.9	84.6
0°-90°	3904.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3904.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1686	1686	1679	1670	1665	160
15°	1589	1593	1589	1582	1571	448
25°	1411	1422	1429	1418	1406	646
35°	1135	1151	1203	1210	1205	711
45°	879	894	923	965	970	678
55°	616	626	656	693	713	549
65°	361	370	392	420	444	358
75°	145	152	164	171	181	158
85°	23	23	23	21	21	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1688.4	1688.4	1688.4	1688.4	1688.4
2.5°	1692.9	1693.6	1689.7	1679.3	1672.8
5°	1686.4	1685.8	1679.3	1670.2	1665.0
7.5°	1667.6	1668.9	1667.0	1654.0	1646.9
10°	1649.5	1650.1	1644.9	1634.5	1626.1
12.5°	1626.1	1625.5	1618.3	1613.1	1599.5
15°	1589.1	1593.0	1589.1	1582.0	1571.0
17.5°	1553.5	1553.5	1556.1	1543.7	1535.3
20°	1513.2	1515.2	1515.2	1505.5	1495.7
22.5°	1466.5	1472.4	1474.3	1464.0	1452.3
25°	1411.4	1422.4	1428.9	1418.5	1406.2
27.5°	1344.6	1361.5	1380.9	1373.1	1359.5
30°	1270.0	1294.7	1327.1	1320.6	1310.9
32.5°	1199.3	1224.0	1268.7	1266.1	1260.9
35°	1135.1	1150.7	1203.2	1209.7	1205.2
37.5°	1074.1	1088.4	1137.7	1152.6	1148.7
40°	1009.9	1025.5	1064.4	1091.0	1092.3
42.5°	946.3	961.3	993.0	1031.3	1031.3
45°	878.9	893.8	923.0	965.2	970.3
47.5°	812.7	828.3	856.8	899.0	907.4
50°	747.9	762.1	790.7	831.5	844.5
52.5°	680.4	696.0	723.9	761.5	780.3
55°	615.5	625.9	656.4	692.7	712.8
57.5°	548.1	557.8	592.2	623.3	644.1
60°	483.2	495.6	522.1	553.9	577.9
62.5°	421.0	433.9	456.6	484.5	511.8
65°	360.6	370.4	392.4	420.3	444.3
67.5°	302.3	310.7	332.7	352.2	377.5
70°	243.2	254.3	270.5	289.3	305.5
72.5°	195.9	200.4	214.0	227.7	244.5
75°	144.6	152.4	163.5	171.2	181.0
77.5°	103.8	108.3	114.8	121.3	130.4
80°	69.4	71.3	77.2	78.5	85.6
82.5°	42.2	43.5	44.8	45.4	48.0
85°	22.7	22.7	22.7	21.4	21.4
87.5°	13.0	13.0	11.0	9.1	6.5
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)