

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: P556290

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-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: P556290
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

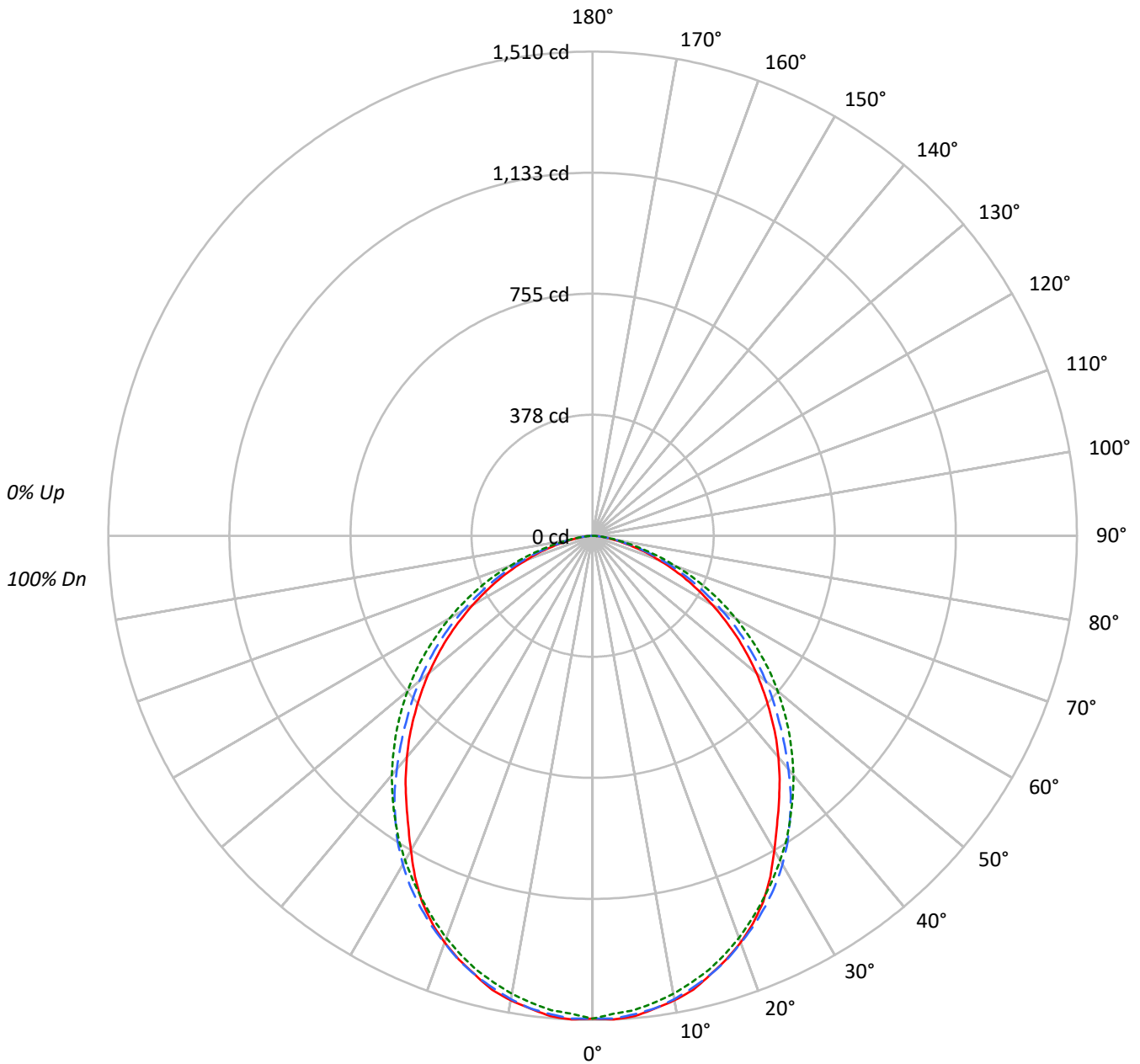
Lumens per Lamp: N/A
Luminaire Lumens: 3482.0 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P556290

CATALOG NUMBER: FUSL-12-4-LD4-1HI-40-UNV-81-85-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556290

CATALOG NUMBER: FUSL-12-4-LD4-1HI-40-UNV-81-85-EDD-90

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°	4052	4052	4052
5°	4063	4046	4011
10°	4020	4009	3963
15°	3949	3949	3904
20°	3865	3870	3820
25°	3738	3784	3724
30°	3520	3678	3633
35°	3326	3525	3531
40°	3164	3335	3422
45°	2983	3133	3294
50°	2792	2952	3153
55°	2576	2747	2983
60°	2320	2506	2774
65°	2048	2229	2523
70°	1707	1898	2144
75°	1341	1516	1678
80°	959	1066	1184
85°	624	624	590



TEST NUMBER: P556290

CATALOG NUMBER: FUSL-12-4-LD4-1HI-40-UNV-81-85-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.8	4.1
10°-20°	398.3	11.4
20°-30°	582.1	16.7
30°-40°	660.7	19.0
40°-50°	637.8	18.3
50°-60°	526.2	15.1
60°-70°	350.4	10.1
70°-80°	156.8	4.5
80°-90°	28.0	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°	1122.2	32.2
0°-40°	1782.8	51.2
0°-60°	2946.8	84.6
0°-90°	3482.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3482.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1504	1504	1498	1490	1485	142
15°	1417	1421	1417	1411	1401	400
25°	1259	1269	1274	1265	1254	576
35°	1012	1026	1073	1079	1075	634
45°	784	797	823	861	866	605
55°	549	558	586	618	636	490
65°	322	330	350	375	396	319
75°	129	136	146	153	161	141
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



TEST NUMBER: P556290

CATALOG NUMBER: FUSL-12-4-LD4-1HI-40-UNV-81-85-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1505.9	1505.9	1505.9	1505.9	1505.9
2.5°	1509.9	1510.5	1507.0	1497.8	1492.0
5°	1504.1	1503.6	1497.8	1489.7	1485.0
7.5°	1487.4	1488.5	1486.8	1475.2	1468.9
10°	1471.2	1471.7	1467.1	1457.9	1450.3
12.5°	1450.3	1449.8	1443.4	1438.8	1426.6
15°	1417.4	1420.8	1417.4	1411.0	1401.2
17.5°	1385.5	1385.5	1387.9	1376.9	1369.3
20°	1349.7	1351.4	1351.4	1342.7	1334.1
22.5°	1308.0	1313.2	1315.0	1305.7	1295.3
25°	1258.8	1268.7	1274.5	1265.2	1254.2
27.5°	1199.3	1214.3	1231.7	1224.7	1212.6
30°	1132.7	1154.7	1183.6	1177.9	1169.2
32.5°	1069.7	1091.7	1131.6	1129.3	1124.6
35°	1012.4	1026.3	1073.1	1078.9	1074.9
37.5°	958.0	970.7	1014.7	1028.0	1024.6
40°	900.7	914.6	949.3	973.1	974.2
42.5°	844.1	857.4	885.7	919.8	919.8
45°	783.9	797.2	823.2	860.8	865.5
47.5°	724.9	738.8	764.2	801.8	809.3
50°	667.0	679.8	705.2	741.7	753.2
52.5°	606.9	620.7	645.6	679.2	696.0
55°	549.0	558.3	585.5	617.9	635.8
57.5°	488.8	497.5	528.2	556.0	574.5
60°	431.0	442.0	465.7	494.1	515.5
62.5°	375.5	387.0	407.3	432.2	456.4
65°	321.7	330.3	350.0	374.9	396.3
67.5°	269.6	277.1	296.8	314.1	336.7
70°	216.9	226.8	241.2	258.0	272.5
72.5°	174.7	178.8	190.9	203.1	218.1
75°	129.0	136.0	145.8	152.7	161.4
77.5°	92.6	96.6	102.4	108.2	116.3
80°	61.9	63.6	68.8	70.0	76.4
82.5°	37.6	38.8	39.9	40.5	42.8
85°	20.2	20.2	20.2	19.1	19.1
87.5°	11.6	11.6	9.8	8.1	5.8
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)