

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: P556805

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-81-86-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: P556805
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-40-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

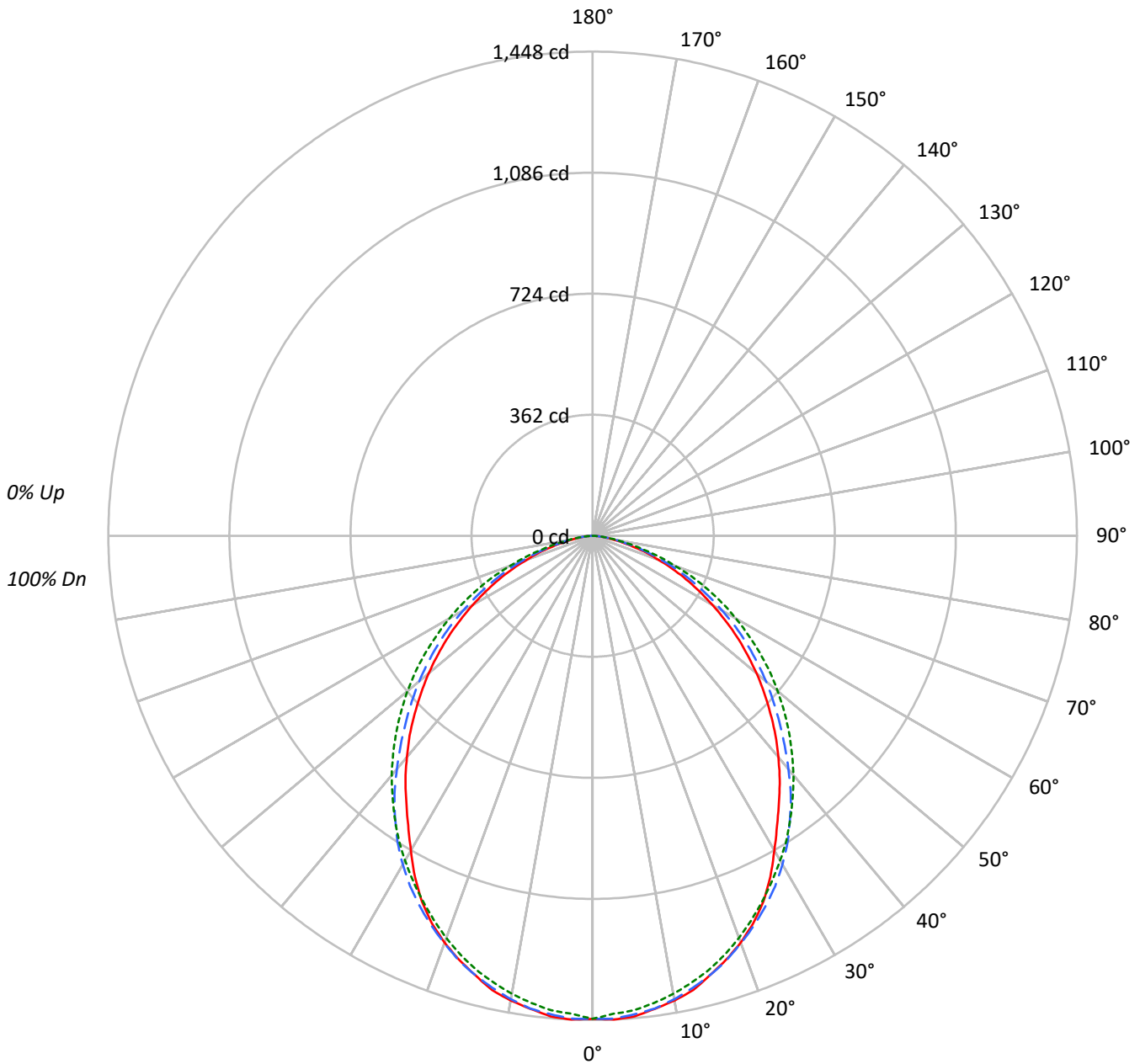
Lumens per Lamp: N/A
Luminaire Lumens: 3340.0 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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: P556805

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P556805

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-86-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°	3887	3887	3887
5°	3897	3881	3848
10°	3856	3845	3801
15°	3788	3788	3744
20°	3707	3712	3665
25°	3585	3630	3572
30°	3376	3528	3485
35°	3190	3382	3387
40°	3035	3199	3283
45°	2861	3005	3159
50°	2678	2832	3025
55°	2471	2635	2861
60°	2225	2404	2661
65°	1964	2138	2420
70°	1637	1821	2057
75°	1286	1454	1609
80°	921	1023	1134
85°	599	599	565



TEST NUMBER: P556805

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	4.1
10°-20°	382.1	11.4
20°-30°	558.3	16.7
30°-40°	633.8	19.0
40°-50°	611.8	18.3
50°-60°	504.7	15.1
60°-70°	336.1	10.1
70°-80°	150.4	4.5
80°-90°	26.9	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°	1076.4	32.2
0°-40°	1710.1	51.2
0°-60°	2826.6	84.6
0°-90°	3340.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1444	1444	1444	1444	1444	
5°	1443	1442	1437	1429	1424	137
15°	1360	1363	1360	1354	1344	383
25°	1208	1217	1222	1214	1203	553
35°	971	984	1029	1035	1031	608
45°	752	765	790	826	830	580
55°	527	536	562	593	610	470
65°	308	317	336	360	380	306
75°	124	130	140	146	155	135
85°	19	19	19	18	18	26
90°	0	0	0	0	0	



TEST NUMBER: P556805

CATALOG NUMBER: FUSL-12-4-LD4-1STD-40-UNV-81-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1444.5	1444.5	1444.5	1444.5	1444.5
2.5°	1448.3	1448.9	1445.6	1436.7	1431.1
5°	1442.8	1442.2	1436.7	1428.9	1424.5
7.5°	1426.7	1427.8	1426.2	1415.1	1408.9
10°	1411.2	1411.7	1407.3	1398.4	1391.2
12.5°	1391.2	1390.6	1384.5	1380.1	1368.4
15°	1359.6	1362.9	1359.6	1353.5	1344.0
17.5°	1329.0	1329.0	1331.3	1320.7	1313.5
20°	1294.6	1296.3	1296.3	1288.0	1279.7
22.5°	1254.7	1259.7	1261.3	1252.5	1242.5
25°	1207.5	1216.9	1222.5	1213.6	1203.1
27.5°	1150.4	1164.8	1181.4	1174.8	1163.1
30°	1086.5	1107.6	1135.4	1129.8	1121.5
32.5°	1026.1	1047.1	1085.4	1083.2	1078.8
35°	971.1	984.4	1029.4	1034.9	1031.0
37.5°	919.0	931.2	973.3	986.1	982.8
40°	864.0	877.3	910.6	933.4	934.5
42.5°	809.6	822.4	849.6	882.3	882.3
45°	751.9	764.7	789.7	825.7	830.2
47.5°	695.3	708.6	733.1	769.1	776.3
50°	639.8	652.0	676.5	711.4	722.5
52.5°	582.1	595.4	619.3	651.5	667.6
55°	526.6	535.5	561.6	592.7	609.9
57.5°	468.9	477.2	506.6	533.3	551.0
60°	413.4	424.0	446.7	473.9	494.4
62.5°	360.1	371.2	390.7	414.5	437.8
65°	308.5	316.9	335.7	359.6	380.1
67.5°	258.6	265.8	284.7	301.3	323.0
70°	208.1	217.5	231.4	247.5	261.4
72.5°	167.6	171.5	183.1	194.8	209.2
75°	123.7	130.4	139.8	146.5	154.8
77.5°	88.8	92.7	98.2	103.8	111.5
80°	59.4	61.0	66.0	67.1	73.2
82.5°	36.1	37.2	38.3	38.8	41.1
85°	19.4	19.4	19.4	18.3	18.3
87.5°	11.1	11.1	9.4	7.8	5.5
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)