

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: P558248

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-93-88-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: P558248
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-LD4-3STD-30-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

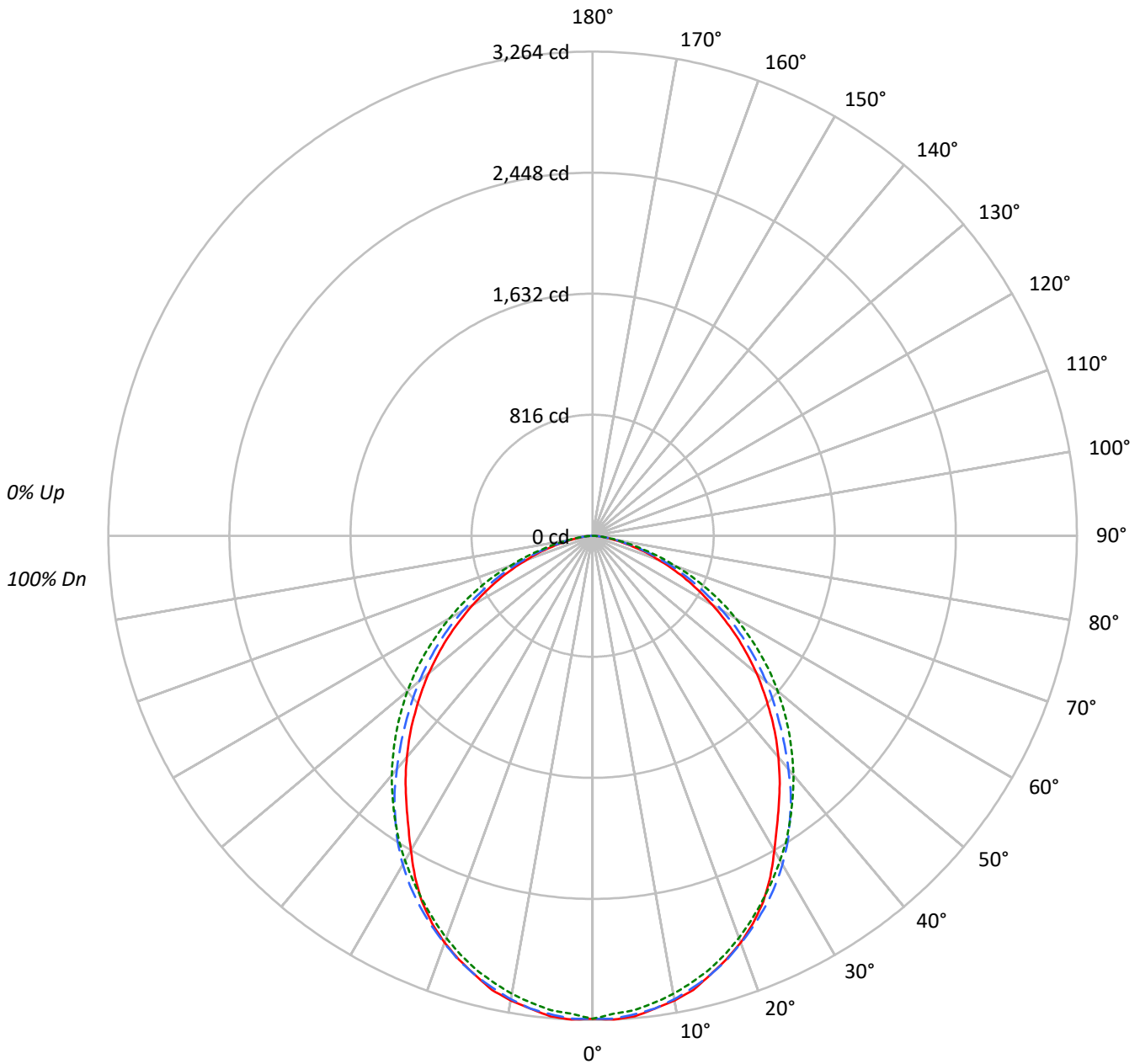
Lumens per Lamp: N/A
Luminaire Lumens: 7528.0 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P558248

CATALOG NUMBER: FUSL-12-4-LD4-3STD-30-UNV-93-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558248

CATALOG NUMBER: FUSL-12-4-LD4-3STD-30-UNV-93-88-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°	8761	8761	8761
5°	8784	8747	8673
10°	8691	8667	8568
15°	8537	8537	8439
20°	8356	8367	8259
25°	8081	8181	8051
30°	7609	7952	7854
35°	7190	7622	7634
40°	6841	7210	7399
45°	6449	6773	7121
50°	6037	6383	6818
55°	5568	5938	6449
60°	5015	5419	5998
65°	4428	4818	5456
70°	3690	4104	4635
75°	2900	3277	3629
80°	2073	2306	2559
85°	1352	1352	1275



TEST NUMBER: P558248

CATALOG NUMBER: FUSL-12-4-LD4-3STD-30-UNV-93-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.5	4.1
10°-20°	861.1	11.4
20°-30°	1258.4	16.7
30°-40°	1428.4	19.0
40°-50°	1378.9	18.3
50°-60°	1137.5	15.1
60°-70°	757.5	10.1
70°-80°	339.0	4.5
80°-90°	60.7	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°	2426.1	32.2
0°-40°	3854.5	51.2
0°-60°	6370.9	84.6
0°-90°	7528.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7528.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3256	3256	3256	3256	3256	
5°	3252	3251	3238	3221	3211	308
15°	3064	3072	3064	3050	3029	864
25°	2722	2743	2755	2735	2712	1246
35°	2189	2219	2320	2333	2324	1371
45°	1695	1724	1780	1861	1871	1308
55°	1187	1207	1266	1336	1375	1059
65°	695	714	757	810	857	690
75°	279	294	315	330	349	305
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



TEST NUMBER: P558248

CATALOG NUMBER: FUSL-12-4-LD4-3STD-30-UNV-93-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3255.7	3255.7	3255.7	3255.7	3255.7
2.5°	3264.4	3265.7	3258.2	3238.2	3225.6
5°	3251.9	3250.7	3238.2	3220.6	3210.6
7.5°	3215.6	3218.1	3214.4	3189.4	3175.6
10°	3180.6	3181.9	3171.9	3151.9	3135.6
12.5°	3135.6	3134.3	3120.6	3110.6	3084.3
15°	3064.3	3071.8	3064.3	3050.5	3029.3
17.5°	2995.5	2995.5	3000.5	2976.8	2960.5
20°	2918.0	2921.7	2921.7	2903.0	2884.2
22.5°	2827.9	2839.2	2842.9	2822.9	2800.4
25°	2721.6	2742.9	2755.4	2735.4	2711.6
27.5°	2592.8	2625.3	2662.8	2647.8	2621.5
30°	2448.9	2496.5	2559.0	2546.5	2527.7
32.5°	2312.6	2360.1	2446.4	2441.4	2431.4
35°	2188.8	2218.8	2320.1	2332.6	2323.9
37.5°	2071.2	2098.7	2193.8	2222.6	2215.1
40°	1947.4	1977.4	2052.5	2103.7	2106.2
42.5°	1824.8	1853.6	1914.9	1988.7	1988.7
45°	1694.7	1723.5	1779.8	1861.1	1871.1
47.5°	1567.2	1597.2	1652.2	1733.5	1749.8
50°	1442.1	1469.6	1524.6	1603.4	1628.5
52.5°	1312.0	1342.0	1395.8	1468.4	1504.6
55°	1186.9	1207.0	1265.7	1335.8	1374.6
57.5°	1056.9	1075.6	1141.9	1202.0	1242.0
60°	931.8	955.6	1006.8	1068.1	1114.4
62.5°	811.7	836.7	880.5	934.3	986.8
65°	695.4	714.2	756.7	810.5	856.8
67.5°	582.8	599.1	641.6	679.1	727.9
70°	469.0	490.3	521.6	557.8	589.1
72.5°	377.7	386.5	412.7	439.0	471.5
75°	278.9	293.9	315.2	330.2	349.0
77.5°	200.1	208.9	221.4	233.9	251.4
80°	133.8	137.6	148.8	151.3	165.1
82.5°	81.3	83.8	86.3	87.6	92.6
85°	43.8	43.8	43.8	41.3	41.3
87.5°	25.0	25.0	21.3	17.5	12.5
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)