

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: P558236

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-96-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: P558236
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-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

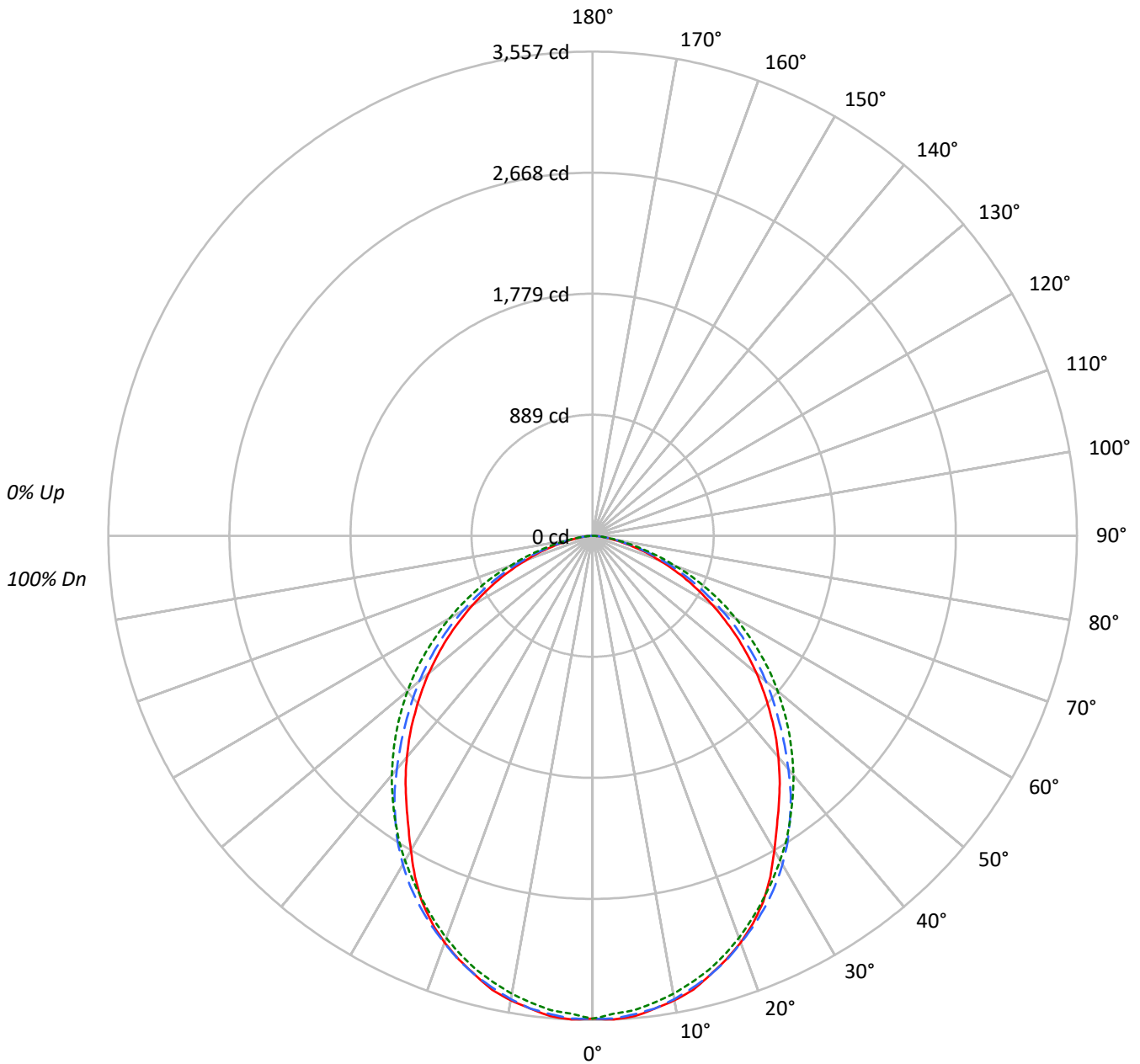
Lumens per Lamp: N/A
Luminaire Lumens: 8203.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	9547	9547	9547
5°	9572	9531	9450
10°	9470	9444	9336
15°	9302	9302	9196
20°	9105	9117	9000
25°	8805	8915	8773
30°	8292	8665	8559
35°	7835	8305	8318
40°	7454	7856	8062
45°	7028	7381	7759
50°	6579	6955	7429
55°	6068	6471	7027
60°	5464	5905	6535
65°	4825	5250	5945
70°	4021	4471	5050
75°	3160	3570	3953
80°	2259	2514	2788
85°	1473	1473	1389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.0	4.1
10°-20°	938.3	11.4
20°-30°	1371.2	16.7
30°-40°	1556.5	19.0
40°-50°	1502.6	18.3
50°-60°	1239.5	15.1
60°-70°	825.4	10.1
70°-80°	369.4	4.5
80°-90°	66.1	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°	2643.6	32.2
0°-40°	4200.1	51.2
0°-60°	6942.2	84.6
0°-90°	8203.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8203.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3548	3548	3548	3548	3548	
5°	3544	3542	3528	3509	3498	335
15°	3339	3347	3339	3324	3301	941
25°	2966	2989	3002	2981	2955	1358
35°	2385	2418	2528	2542	2532	1494
45°	1847	1878	1939	2028	2039	1425
55°	1293	1315	1379	1456	1498	1154
65°	758	778	824	883	934	751
75°	304	320	343	360	380	332
85°	48	48	48	45	45	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3547.6	3547.6	3547.6	3547.6	3547.6
2.5°	3557.1	3558.5	3550.3	3528.5	3514.9
5°	3543.5	3542.1	3528.5	3509.4	3498.5
7.5°	3504.0	3506.7	3502.6	3475.4	3460.4
10°	3465.8	3467.2	3456.3	3434.5	3416.7
12.5°	3416.7	3415.4	3400.4	3389.5	3360.9
15°	3339.1	3347.2	3339.1	3324.1	3300.9
17.5°	3264.1	3264.1	3269.6	3243.7	3225.9
20°	3179.6	3183.7	3183.7	3163.3	3142.8
22.5°	3081.5	3093.7	3097.8	3076.0	3051.5
25°	2965.6	2988.8	3002.4	2980.6	2954.7
27.5°	2825.3	2860.7	2901.6	2885.2	2856.6
30°	2668.5	2720.3	2788.5	2774.8	2754.4
32.5°	2520.0	2571.8	2665.8	2660.3	2649.4
35°	2385.0	2417.8	2528.1	2541.8	2532.2
37.5°	2256.9	2286.9	2390.5	2421.8	2413.7
40°	2122.0	2154.7	2236.5	2292.4	2295.1
42.5°	1988.4	2019.8	2086.6	2167.0	2167.0
45°	1846.7	1878.1	1939.4	2028.0	2038.9
47.5°	1707.7	1740.4	1800.4	1889.0	1906.7
50°	1571.4	1601.4	1661.4	1747.2	1774.5
52.5°	1429.7	1462.4	1521.0	1600.0	1639.5
55°	1293.4	1315.2	1379.2	1455.6	1497.8
57.5°	1151.6	1172.1	1244.3	1309.7	1353.3
60°	1015.3	1041.2	1097.1	1163.9	1214.3
62.5°	884.5	911.8	959.5	1018.1	1075.3
65°	757.8	778.2	824.5	883.1	933.6
67.5°	635.1	652.8	699.2	740.0	793.2
70°	511.1	534.3	568.3	607.8	641.9
72.5°	411.6	421.1	449.8	478.4	513.8
75°	303.9	320.3	343.4	359.8	380.2
77.5°	218.1	227.6	241.2	254.9	273.9
80°	145.8	149.9	162.2	164.9	179.9
82.5°	88.6	91.3	94.0	95.4	100.9
85°	47.7	47.7	47.7	45.0	45.0
87.5°	27.3	27.3	23.2	19.1	13.6
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)