

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: P558272

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-81-84-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: P558272
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-35-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

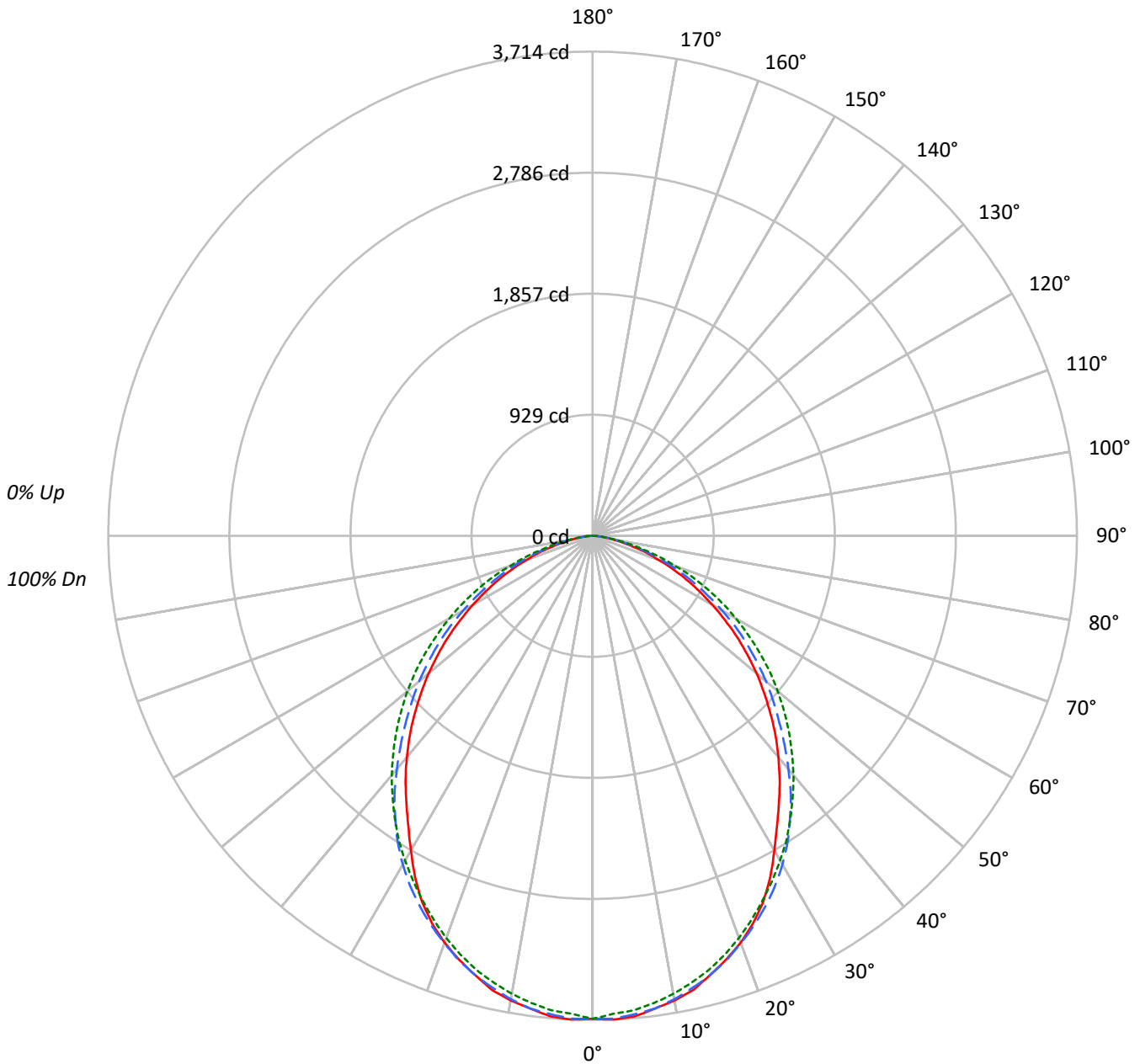
Lumens per Lamp: N/A
Luminaire Lumens: 8566.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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

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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°	9969	9969	9969
5°	9995	9953	9869
10°	9889	9862	9749
15°	9714	9714	9603
20°	9508	9521	9398
25°	9195	9309	9161
30°	8659	9048	8937
35°	8182	8673	8687
40°	7784	8204	8419
45°	7339	7707	8103
50°	6869	7263	7757
55°	6336	6757	7338
60°	5706	6166	6825
65°	5039	5482	6208
70°	4199	4670	5274
75°	3300	3728	4129
80°	2360	2625	2912
85°	1538	1538	1451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.8	4.1
10°-20°	979.9	11.4
20°-30°	1431.9	16.7
30°-40°	1625.4	19.0
40°-50°	1569.0	18.3
50°-60°	1294.4	15.1
60°-70°	861.9	10.1
70°-80°	385.7	4.5
80°-90°	69.0	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°	2760.6	32.2
0°-40°	4386.0	51.2
0°-60°	7249.4	84.6
0°-90°	8566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3705	3705	3705	3705	3705	
5°	3700	3699	3685	3665	3653	350
15°	3487	3495	3487	3471	3447	983
25°	3097	3121	3135	3112	3086	1418
35°	2491	2525	2640	2654	2644	1560
45°	1928	1961	2025	2118	2129	1488
55°	1351	1373	1440	1520	1564	1205
65°	791	813	861	922	975	785
75°	317	334	359	376	397	347
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3704.6	3704.6	3704.6	3704.6	3704.6
2.5°	3714.5	3716.0	3707.4	3684.6	3670.4
5°	3700.3	3698.9	3684.6	3664.7	3653.3
7.5°	3659.0	3661.9	3657.6	3629.1	3613.5
10°	3619.2	3620.6	3609.2	3586.4	3567.9
12.5°	3567.9	3566.5	3550.9	3539.5	3509.6
15°	3486.8	3495.4	3486.8	3471.2	3447.0
17.5°	3408.5	3408.5	3414.2	3387.2	3368.7
20°	3320.3	3324.6	3324.6	3303.2	3281.9
22.5°	3217.8	3230.7	3234.9	3212.1	3186.5
25°	3096.9	3121.1	3135.3	3112.5	3085.5
27.5°	2950.3	2987.3	3030.0	3012.9	2983.0
30°	2786.6	2840.7	2911.9	2897.6	2876.3
32.5°	2631.5	2685.6	2783.8	2778.1	2766.7
35°	2490.6	2524.7	2640.0	2654.3	2644.3
37.5°	2356.8	2388.1	2496.3	2529.0	2520.5
40°	2215.9	2250.1	2335.5	2393.8	2396.7
42.5°	2076.4	2109.2	2178.9	2262.9	2262.9
45°	1928.4	1961.2	2025.2	2117.7	2129.1
47.5°	1783.3	1817.4	1880.0	1972.5	1991.0
50°	1640.9	1672.3	1734.9	1824.5	1853.0
52.5°	1492.9	1527.1	1588.3	1670.8	1712.1
55°	1350.6	1373.4	1440.3	1520.0	1564.1
57.5°	1202.6	1223.9	1299.4	1367.7	1413.2
60°	1060.3	1087.3	1145.7	1215.4	1268.1
62.5°	923.7	952.1	1001.9	1063.1	1122.9
65°	791.3	812.6	861.0	922.2	974.9
67.5°	663.2	681.7	730.1	772.8	828.3
70°	533.7	557.9	593.5	634.7	670.3
72.5°	429.8	439.8	469.7	499.5	536.5
75°	317.4	334.5	358.6	375.7	397.1
77.5°	227.7	237.7	251.9	266.1	286.1
80°	152.3	156.6	169.4	172.2	187.9
82.5°	92.5	95.4	98.2	99.6	105.3
85°	49.8	49.8	49.8	47.0	47.0
87.5°	28.5	28.5	24.2	19.9	14.2
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)