

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: P558220

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-81-96-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: P558220
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-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

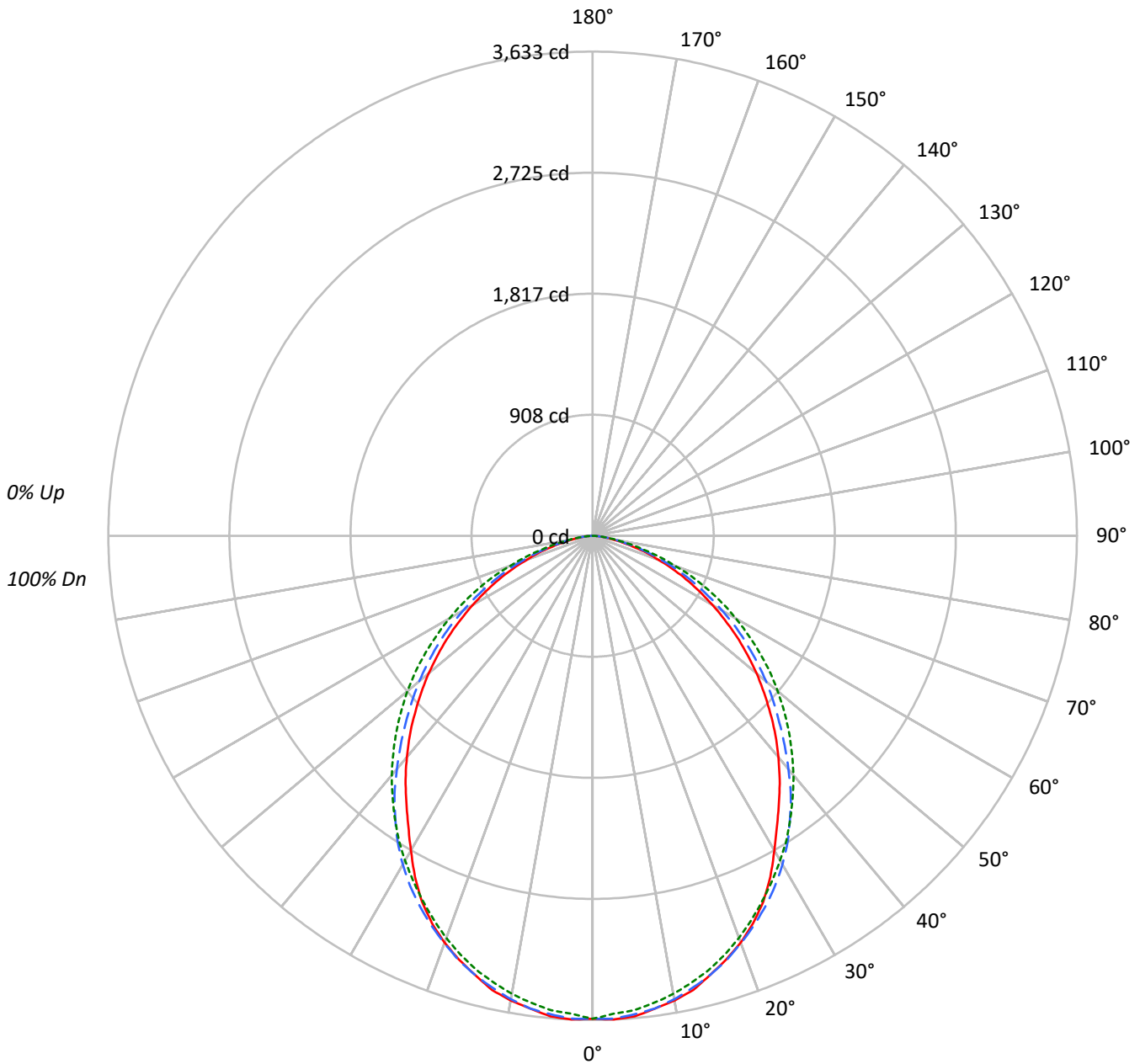
Lumens per Lamp: N/A
Luminaire Lumens: 8379.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9751	9751	9751
5°	9777	9736	9653
10°	9674	9647	9537
15°	9502	9502	9393
20°	9301	9313	9193
25°	8994	9106	8961
30°	8470	8850	8742
35°	8003	8483	8497
40°	7614	8025	8235
45°	7179	7539	7926
50°	6720	7104	7588
55°	6198	6609	7178
60°	5582	6032	6676
65°	4928	5363	6072
70°	4107	4567	5159
75°	3227	3647	4038
80°	2309	2568	2848
85°	1504	1504	1417



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.2	4.1
10°-20°	958.5	11.4
20°-30°	1400.7	16.7
30°-40°	1589.9	19.0
40°-50°	1534.8	18.3
50°-60°	1266.1	15.1
60°-70°	843.1	10.1
70°-80°	377.3	4.5
80°-90°	67.5	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°	2700.3	32.2
0°-40°	4290.2	51.2
0°-60°	7091.1	84.6
0°-90°	8379.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8379.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3624	3624	3624	3624	3624	
5°	3620	3618	3604	3585	3574	343
15°	3411	3419	3411	3395	3372	962
25°	3029	3053	3067	3045	3018	1387
35°	2436	2470	2582	2596	2587	1526
45°	1886	1918	1981	2072	2083	1455
55°	1321	1343	1409	1487	1530	1179
65°	774	795	842	902	954	767
75°	310	327	351	368	388	339
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3623.7	3623.7	3623.7	3623.7	3623.7
2.5°	3633.4	3634.8	3626.5	3604.2	3590.3
5°	3619.5	3618.1	3604.2	3584.7	3573.6
7.5°	3579.2	3581.9	3577.8	3549.9	3534.6
10°	3540.2	3541.6	3530.4	3508.2	3490.1
12.5°	3490.1	3488.7	3473.4	3462.2	3433.0
15°	3410.7	3419.1	3410.7	3395.4	3371.7
17.5°	3334.1	3334.1	3339.7	3313.3	3295.2
20°	3247.8	3252.0	3252.0	3231.1	3210.2
22.5°	3147.6	3160.1	3164.3	3142.0	3117.0
25°	3029.3	3052.9	3066.9	3044.6	3018.1
27.5°	2885.9	2922.1	2963.8	2947.1	2917.9
30°	2725.8	2778.7	2848.3	2834.4	2813.5
32.5°	2574.0	2626.9	2723.0	2717.4	2706.3
35°	2436.2	2469.6	2582.4	2596.3	2586.6
37.5°	2305.4	2336.0	2441.8	2473.8	2465.5
40°	2167.5	2200.9	2284.5	2341.6	2344.3
42.5°	2031.1	2063.1	2131.3	2213.5	2213.5
45°	1886.3	1918.3	1981.0	2071.5	2082.6
47.5°	1744.3	1777.7	1839.0	1929.5	1947.6
50°	1605.1	1635.7	1697.0	1784.7	1812.5
52.5°	1460.3	1493.8	1553.6	1634.4	1674.7
55°	1321.1	1343.4	1408.8	1486.8	1529.9
57.5°	1176.3	1197.2	1271.0	1337.8	1382.4
60°	1037.1	1063.6	1120.7	1188.9	1240.4
62.5°	903.5	931.3	980.1	1039.9	1098.4
65°	774.0	794.9	842.2	902.1	953.6
67.5°	648.7	666.8	714.2	755.9	810.2
70°	522.0	545.7	580.5	620.9	655.7
72.5°	420.4	430.2	459.4	488.6	524.8
75°	310.4	327.1	350.8	367.5	388.4
77.5°	222.7	232.5	246.4	260.3	279.8
80°	149.0	153.1	165.7	168.4	183.8
82.5°	90.5	93.3	96.1	97.4	103.0
85°	48.7	48.7	48.7	45.9	45.9
87.5°	27.8	27.8	23.7	19.5	13.9
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)