

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: P556993

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-81-84-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: P556993
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-LD4-2HI-35-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

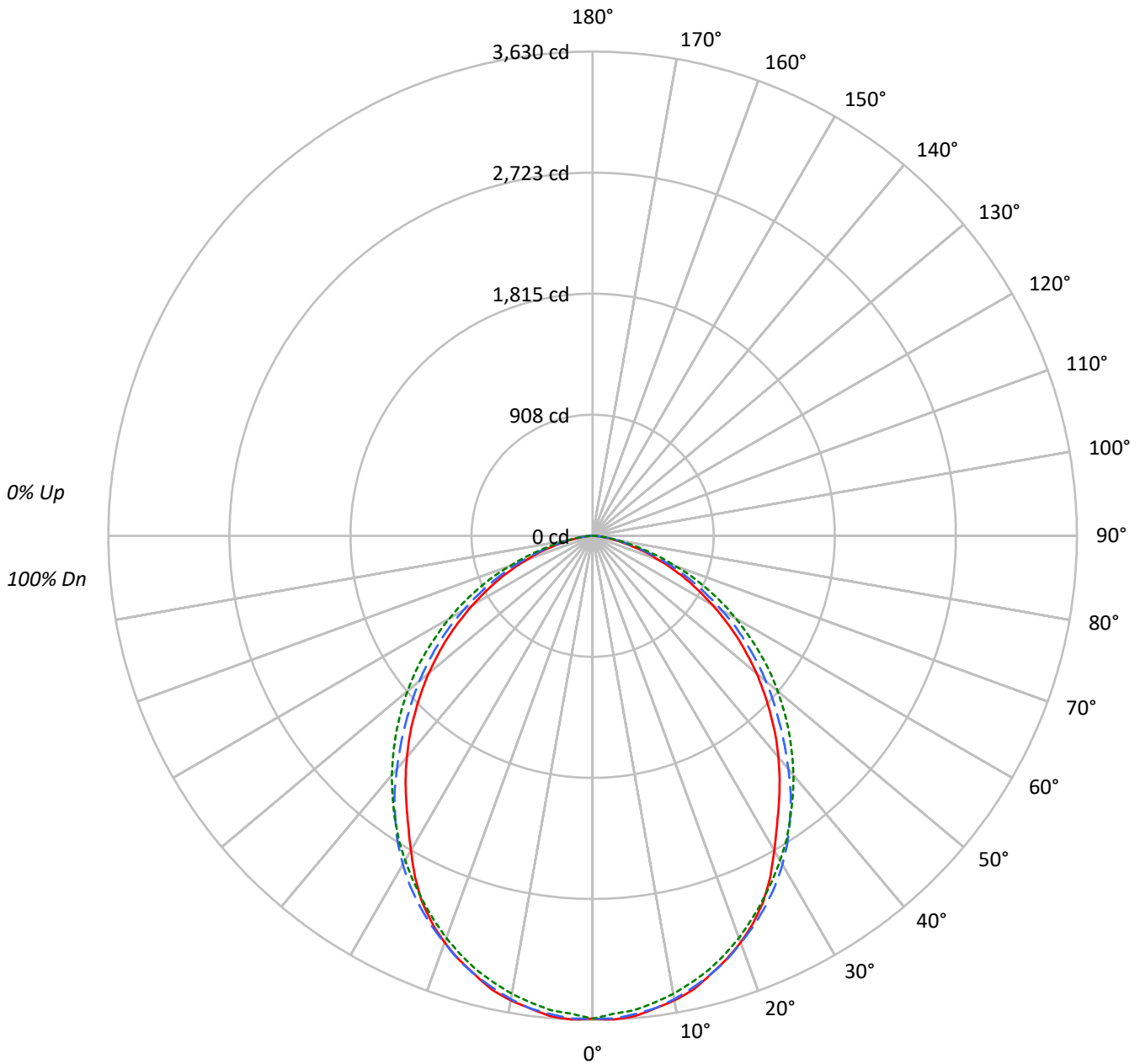
Lumens per Lamp: N/A
Luminaire Lumens: 8371.0 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	9742	9742	9742
5°	9768	9727	9644
10°	9664	9638	9527
15°	9493	9493	9384
20°	9292	9304	9184
25°	8986	9097	8953
30°	8462	8842	8734
35°	7996	8475	8489
40°	7607	8017	8227
45°	7172	7532	7918
50°	6713	7098	7581
55°	6192	6603	7171
60°	5576	6026	6669
65°	4924	5358	6066
70°	4103	4563	5154
75°	3224	3644	4034
80°	2306	2565	2845
85°	1504	1504	1417



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.9	4.1
10°-20°	957.6	11.4
20°-30°	1399.3	16.7
30°-40°	1588.4	19.0
40°-50°	1533.3	18.3
50°-60°	1264.9	15.1
60°-70°	842.3	10.1
70°-80°	376.9	4.5
80°-90°	67.4	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°	2697.7	32.2
0°-40°	4286.1	51.2
0°-60°	7084.3	84.6
0°-90°	8371.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8371.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3620	3620	3620	3620	3620	
5°	3616	3615	3601	3581	3570	342
15°	3407	3416	3407	3392	3368	961
25°	3026	3050	3064	3042	3015	1386
35°	2434	2467	2580	2594	2584	1525
45°	1884	1916	1979	2070	2081	1454
55°	1320	1342	1408	1485	1528	1178
65°	773	794	841	901	953	767
75°	310	327	350	367	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°	3620.2	3620.2	3620.2	3620.2	3620.2
2.5°	3630.0	3631.4	3623.0	3600.8	3586.9
5°	3616.1	3614.7	3600.8	3581.3	3570.2
7.5°	3575.7	3578.5	3574.3	3546.5	3531.2
10°	3536.8	3538.2	3527.1	3504.8	3486.7
12.5°	3486.7	3485.3	3470.0	3458.9	3429.7
15°	3407.4	3415.8	3407.4	3392.2	3368.5
17.5°	3331.0	3331.0	3336.5	3310.1	3292.0
20°	3244.7	3248.9	3248.9	3228.0	3207.2
22.5°	3144.6	3157.1	3161.3	3139.0	3114.0
25°	3026.4	3050.0	3063.9	3041.7	3015.2
27.5°	2883.1	2919.3	2961.0	2944.3	2915.1
30°	2723.2	2776.0	2845.6	2831.7	2810.8
32.5°	2571.6	2624.4	2720.4	2714.8	2703.7
35°	2433.9	2467.3	2579.9	2593.8	2584.1
37.5°	2303.2	2333.8	2439.5	2471.4	2463.1
40°	2165.5	2198.8	2282.3	2339.3	2342.1
42.5°	2029.2	2061.2	2129.3	2211.4	2211.4
45°	1884.5	1916.5	1979.1	2069.5	2080.6
47.5°	1742.7	1776.0	1837.2	1927.6	1945.7
50°	1603.6	1634.2	1695.4	1783.0	1810.8
52.5°	1458.9	1492.3	1552.1	1632.8	1673.1
55°	1319.9	1342.1	1407.5	1485.4	1528.5
57.5°	1175.2	1196.1	1269.8	1336.6	1381.1
60°	1036.1	1062.6	1119.6	1187.7	1239.2
62.5°	902.6	930.4	979.1	1038.9	1097.3
65°	773.3	794.1	841.4	901.2	952.7
67.5°	648.1	666.2	713.5	755.2	809.4
70°	521.5	545.2	580.0	620.3	655.1
72.5°	420.0	429.8	459.0	488.2	524.3
75°	310.1	326.8	350.5	367.2	388.0
77.5°	222.5	232.3	246.2	260.1	279.5
80°	148.8	153.0	165.5	168.3	183.6
82.5°	90.4	93.2	96.0	97.4	102.9
85°	48.7	48.7	48.7	45.9	45.9
87.5°	27.8	27.8	23.6	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)