

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: P558294

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-82-87-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: P558294
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-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

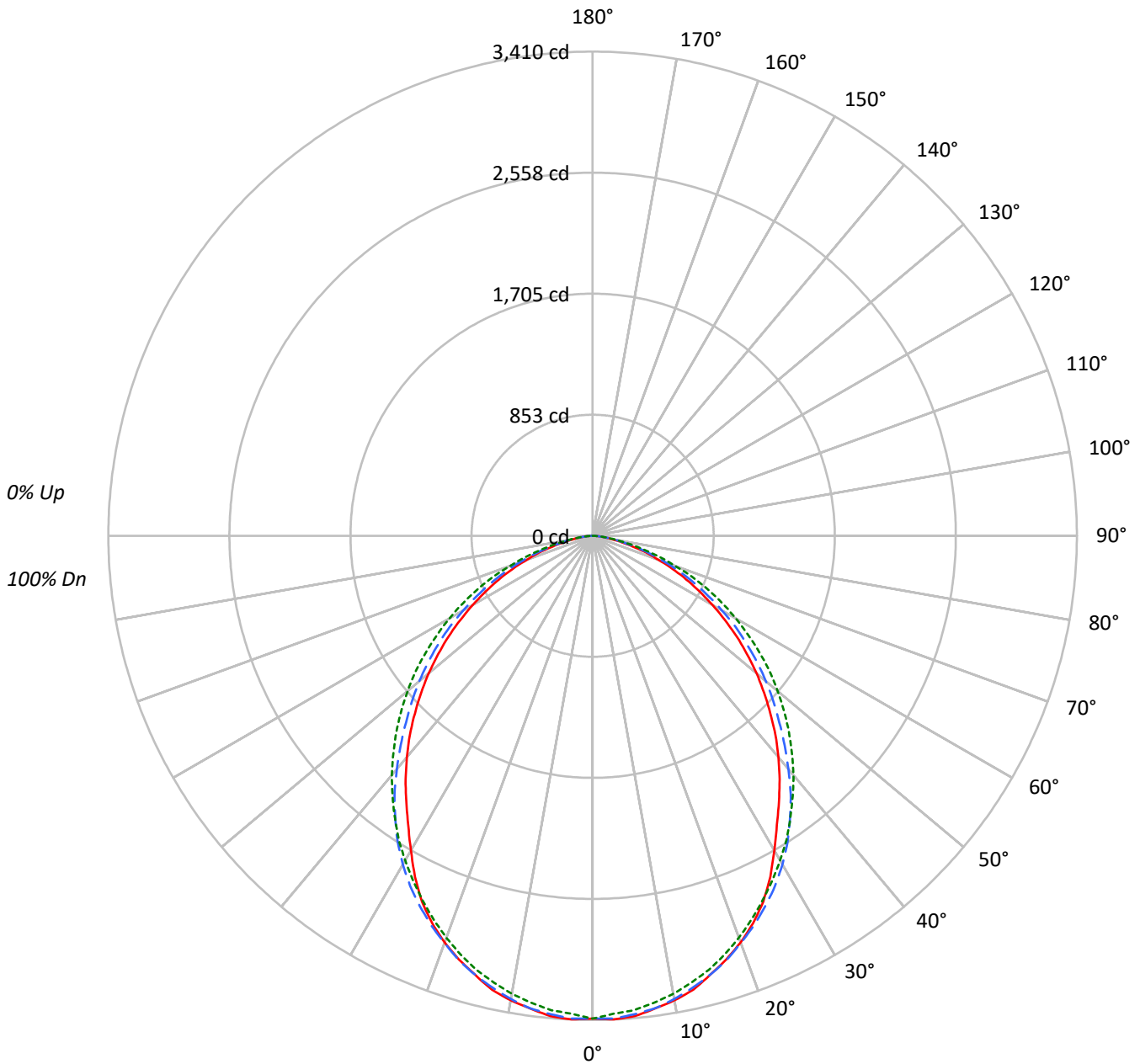
Lumens per Lamp: N/A
Luminaire Lumens: 7863.0 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9151	9151	9151
5°	9175	9136	9059
10°	9078	9053	8949
15°	8917	8917	8815
20°	8728	8739	8627
25°	8440	8545	8410
30°	7948	8305	8204
35°	7510	7961	7974
40°	7145	7531	7728
45°	6737	7075	7438
50°	6306	6667	7121
55°	5817	6203	6736
60°	5238	5660	6265
65°	4625	5033	5698
70°	3854	4286	4841
75°	3029	3423	3790
80°	2166	2410	2672
85°	1411	1411	1331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.2	4.1
10°-20°	899.4	11.4
20°-30°	1314.4	16.7
30°-40°	1492.0	19.0
40°-50°	1440.3	18.3
50°-60°	1188.1	15.1
60°-70°	791.2	10.1
70°-80°	354.1	4.5
80°-90°	63.3	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°	2534.0	32.2
0°-40°	4026.0	51.2
0°-60°	6654.4	84.6
0°-90°	7863.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7863.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3400	3400	3400	3400	3400	
5°	3397	3395	3382	3364	3354	321
15°	3201	3208	3201	3186	3164	902
25°	2843	2865	2878	2857	2832	1302
35°	2286	2318	2423	2436	2427	1432
45°	1770	1800	1859	1944	1954	1366
55°	1240	1261	1322	1395	1436	1107
65°	726	746	790	846	895	720
75°	291	307	329	345	364	319
85°	46	46	46	43	43	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3400.5	3400.5	3400.5	3400.5	3400.5
2.5°	3409.7	3411.0	3403.2	3382.3	3369.2
5°	3396.6	3395.3	3382.3	3364.0	3353.5
7.5°	3358.7	3361.4	3357.4	3331.3	3316.9
10°	3322.2	3323.5	3313.0	3292.1	3275.1
12.5°	3275.1	3273.8	3259.5	3249.0	3221.6
15°	3200.7	3208.5	3200.7	3186.3	3164.1
17.5°	3128.8	3128.8	3134.0	3109.2	3092.2
20°	3047.8	3051.7	3051.7	3032.1	3012.5
22.5°	2953.8	2965.5	2969.4	2948.5	2925.0
25°	2842.7	2864.9	2878.0	2857.1	2832.3
27.5°	2708.2	2742.1	2781.3	2765.6	2738.2
30°	2557.9	2607.6	2672.9	2659.8	2640.2
32.5°	2415.5	2465.2	2555.3	2550.1	2539.6
35°	2286.2	2317.5	2423.4	2436.4	2427.3
37.5°	2163.4	2192.1	2291.4	2321.5	2313.6
40°	2034.1	2065.4	2143.8	2197.4	2200.0
42.5°	1906.0	1936.1	2000.1	2077.2	2077.2
45°	1770.2	1800.2	1859.0	1943.9	1954.4
47.5°	1636.9	1668.3	1725.7	1810.7	1827.6
50°	1506.3	1535.0	1592.5	1674.8	1700.9
52.5°	1370.4	1401.8	1457.9	1533.7	1571.6
55°	1239.8	1260.7	1322.1	1395.2	1435.7
57.5°	1103.9	1123.5	1192.7	1255.4	1297.2
60°	973.3	998.1	1051.6	1115.7	1164.0
62.5°	847.8	874.0	919.7	975.9	1030.7
65°	726.4	746.0	790.4	846.5	894.9
67.5°	608.8	625.8	670.2	709.4	760.3
70°	489.9	512.1	544.8	582.7	615.3
72.5°	394.5	403.7	431.1	458.5	492.5
75°	291.3	307.0	329.2	344.9	364.5
77.5°	209.0	218.2	231.2	244.3	262.6
80°	139.8	143.7	155.5	158.1	172.4
82.5°	84.9	87.5	90.1	91.4	96.7
85°	45.7	45.7	45.7	43.1	43.1
87.5°	26.1	26.1	22.2	18.3	13.1
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)