

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: P558340

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-86-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: P558340
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-40-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

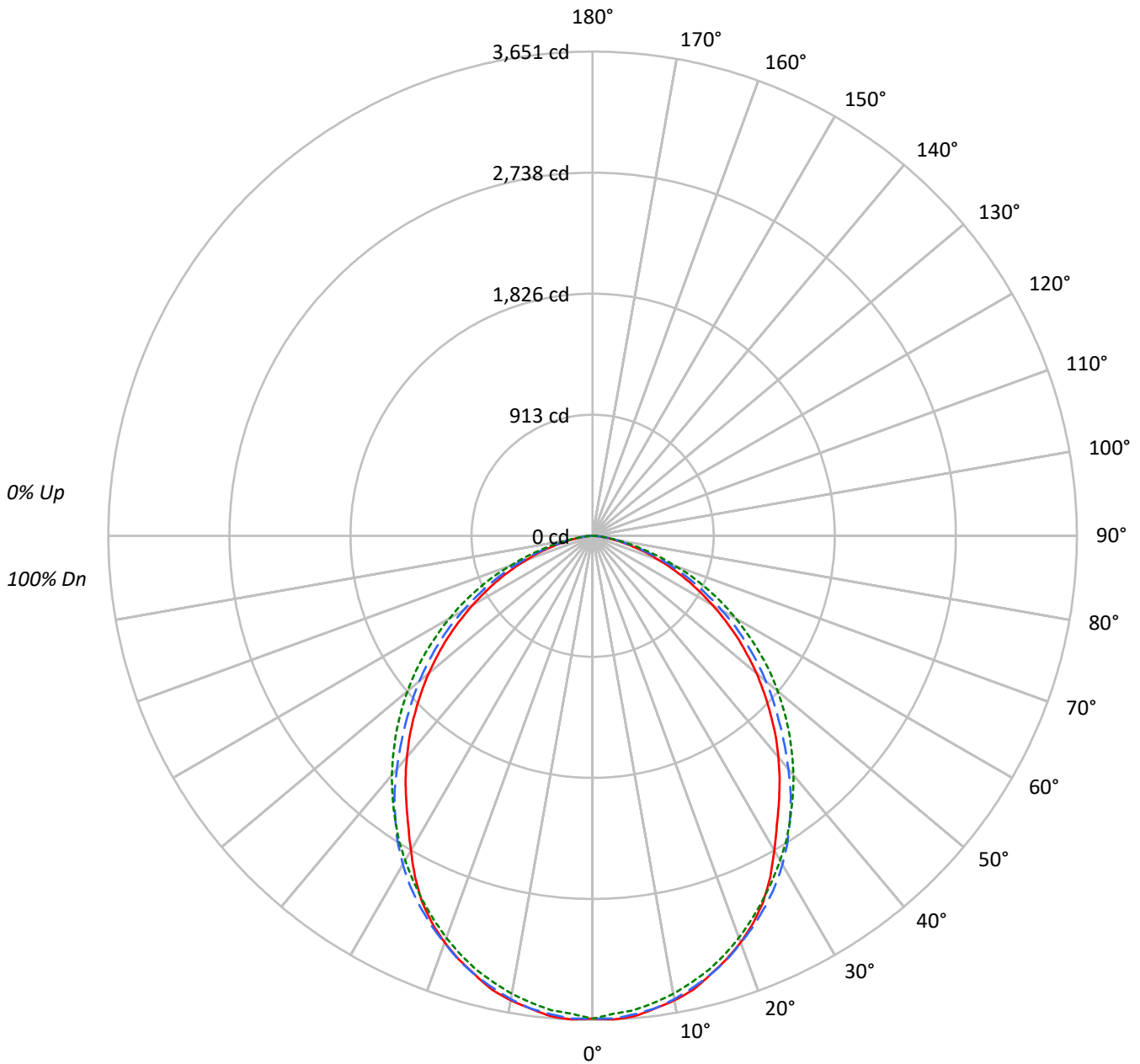
Lumens per Lamp: N/A
Luminaire Lumens: 8419.0 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9798	9798	9798
5°	9824	9782	9699
10°	9720	9693	9582
15°	9547	9547	9438
20°	9345	9357	9237
25°	9037	9149	9004
30°	8510	8893	8784
35°	8041	8524	8538
40°	7651	8063	8274
45°	7213	7575	7964
50°	6752	7138	7624
55°	6228	6641	7212
60°	5609	6060	6708
65°	4952	5389	6101
70°	4127	4589	5183
75°	3243	3665	4058
80°	2320	2580	2861
85°	1513	1513	1426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.8	4.1
10°-20°	963.1	11.4
20°-30°	1407.3	16.7
30°-40°	1597.5	19.0
40°-50°	1542.1	18.3
50°-60°	1272.1	15.1
60°-70°	847.1	10.1
70°-80°	379.1	4.5
80°-90°	67.8	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°	2713.2	32.2
0°-40°	4310.7	51.2
0°-60°	7124.9	84.6
0°-90°	8419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3641	3641	3641	3641	3641	
5°	3637	3635	3621	3602	3591	344
15°	3427	3435	3427	3412	3388	966
25°	3044	3068	3082	3059	3032	1394
35°	2448	2481	2595	2609	2599	1534
45°	1895	1928	1990	2081	2093	1462
55°	1327	1350	1416	1494	1537	1185
65°	778	799	846	906	958	771
75°	312	329	352	369	390	341
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°	3641.0	3641.0	3641.0	3641.0	3641.0
2.5°	3650.8	3652.2	3643.8	3621.4	3607.4
5°	3636.8	3635.4	3621.4	3601.8	3590.6
7.5°	3596.2	3599.0	3594.8	3566.9	3551.5
10°	3557.1	3558.5	3547.3	3524.9	3506.7
12.5°	3506.7	3505.3	3489.9	3478.7	3449.4
15°	3427.0	3435.4	3427.0	3411.6	3387.8
17.5°	3350.1	3350.1	3355.7	3329.1	3310.9
20°	3263.3	3267.5	3267.5	3246.5	3225.6
22.5°	3162.6	3175.2	3179.4	3157.0	3131.8
25°	3043.7	3067.5	3081.5	3059.1	3032.5
27.5°	2899.7	2936.0	2978.0	2961.2	2931.8
30°	2738.8	2791.9	2861.9	2847.9	2826.9
32.5°	2586.3	2639.5	2736.0	2730.4	2719.2
35°	2447.8	2481.4	2594.7	2608.7	2598.9
37.5°	2316.4	2347.1	2453.4	2485.6	2477.2
40°	2177.9	2211.5	2295.4	2352.7	2355.5
42.5°	2040.8	2073.0	2141.5	2224.0	2224.0
45°	1895.3	1927.5	1990.5	2081.4	2092.6
47.5°	1752.7	1786.2	1847.8	1938.7	1956.9
50°	1612.8	1643.6	1705.1	1793.2	1821.2
52.5°	1467.3	1500.9	1561.0	1642.2	1682.7
55°	1327.4	1349.8	1415.6	1493.9	1537.2
57.5°	1182.0	1202.9	1277.1	1344.2	1389.0
60°	1042.1	1068.7	1126.0	1194.6	1246.3
62.5°	907.8	935.8	984.7	1044.9	1103.6
65°	777.7	798.7	846.3	906.4	958.2
67.5°	651.8	670.0	717.6	759.5	814.1
70°	524.5	548.3	583.3	623.9	658.8
72.5°	422.4	432.2	461.6	491.0	527.3
75°	311.9	328.7	352.5	369.3	390.3
77.5°	223.8	233.6	247.6	261.6	281.2
80°	149.7	153.9	166.5	169.3	184.6
82.5°	90.9	93.7	96.5	97.9	103.5
85°	49.0	49.0	49.0	46.2	46.2
87.5°	28.0	28.0	23.8	19.6	14.0
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)