

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: P557760

Luminaire Tested: **FUSL-12-4-LD4-3HI-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: P557760
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-LD4-3HI-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

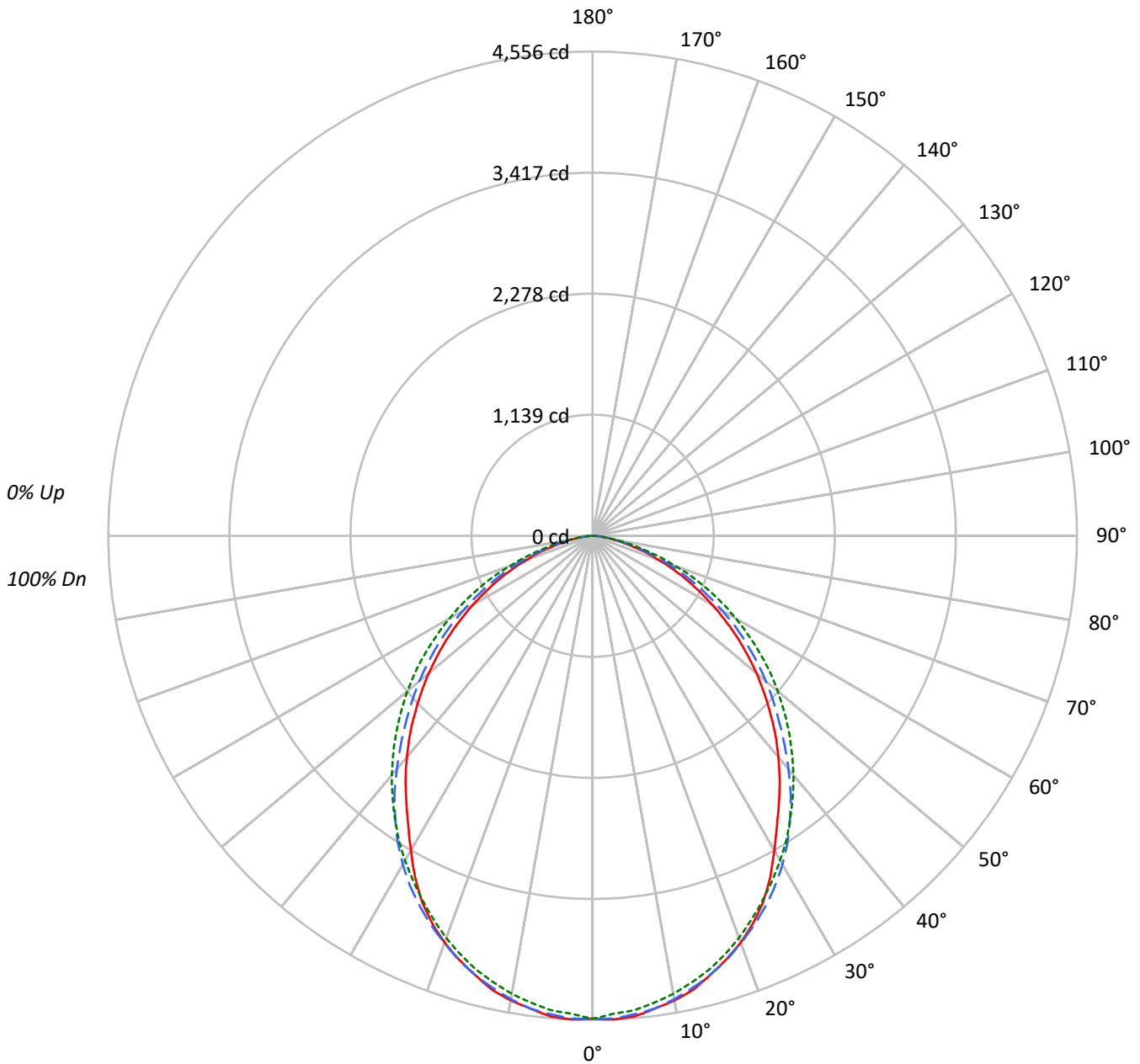
Lumens per Lamp: N/A
Luminaire Lumens: 10507.0 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	12228	12228	12228
5°	12260	12209	12105
10°	12130	12097	11958
15°	11915	11915	11779
20°	11663	11678	11528
25°	11279	11419	11237
30°	10621	11098	10962
35°	10036	10638	10655
40°	9548	10063	10327
45°	9002	9454	9938
50°	8426	8909	9515
55°	7773	8288	9001
60°	6999	7563	8371
65°	6180	6725	7614
70°	5150	5727	6469
75°	4048	4574	5063
80°	2895	3219	3570
85°	1886	1886	1778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.8	4.1
10°-20°	1201.9	11.4
20°-30°	1756.4	16.7
30°-40°	1993.7	19.0
40°-50°	1924.6	18.3
50°-60°	1587.7	15.1
60°-70°	1057.2	10.1
70°-80°	473.1	4.5
80°-90°	84.6	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°	3386.1	32.2
0°-40°	5379.8	51.2
0°-60°	8892.0	84.6
0°-90°	10507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10507.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4544	4544	4544	4544	4544	
5°	4539	4537	4520	4495	4481	430
15°	4277	4287	4277	4258	4228	1206
25°	3799	3828	3846	3818	3785	1740
35°	3055	3097	3238	3256	3244	1914
45°	2365	2406	2484	2598	2612	1825
55°	1657	1685	1767	1864	1918	1479
65°	971	997	1056	1131	1196	962
75°	389	410	440	461	487	426
85°	61	61	61	58	58	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4544.0	4544.0	4544.0	4544.0	4544.0
2.5°	4556.2	4558.0	4547.5	4519.6	4502.1
5°	4538.8	4537.0	4519.6	4495.1	4481.2
7.5°	4488.1	4491.6	4486.4	4451.5	4432.3
10°	4439.3	4441.0	4427.0	4399.1	4376.4
12.5°	4376.4	4374.7	4355.5	4341.5	4304.8
15°	4276.9	4287.4	4276.9	4257.7	4228.0
17.5°	4180.9	4180.9	4187.9	4154.7	4132.0
20°	4072.7	4077.9	4077.9	4051.7	4025.5
22.5°	3947.0	3962.7	3967.9	3940.0	3908.6
25°	3798.6	3828.3	3845.7	3817.8	3784.6
27.5°	3618.8	3664.2	3716.6	3695.6	3658.9
30°	3418.0	3484.4	3571.7	3554.2	3528.0
32.5°	3227.8	3294.1	3414.6	3407.6	3393.6
35°	3054.9	3096.8	3238.2	3255.7	3243.5
37.5°	2890.8	2929.3	3061.9	3102.1	3091.6
40°	2718.0	2759.9	2864.7	2936.2	2939.7
42.5°	2546.9	2587.1	2672.6	2775.6	2775.6
45°	2365.4	2405.5	2484.1	2597.6	2611.5
47.5°	2187.3	2229.2	2306.0	2419.5	2442.2
50°	2012.8	2051.2	2128.0	2238.0	2272.9
52.5°	1831.2	1873.1	1948.2	2049.4	2100.1
55°	1656.7	1684.6	1766.6	1864.4	1918.5
57.5°	1475.1	1501.3	1593.8	1677.6	1733.5
60°	1300.5	1333.7	1405.3	1490.8	1555.4
62.5°	1132.9	1167.9	1229.0	1304.0	1377.3
65°	970.6	996.8	1056.1	1131.2	1195.8
67.5°	813.5	836.2	895.5	947.9	1016.0
70°	654.6	684.3	727.9	778.6	822.2
72.5°	527.2	539.4	576.1	612.7	658.1
75°	389.3	410.2	439.9	460.9	487.0
77.5°	279.3	291.5	309.0	326.4	350.9
80°	186.8	192.0	207.7	211.2	230.4
82.5°	113.5	117.0	120.5	122.2	129.2
85°	61.1	61.1	61.1	57.6	57.6
87.5°	34.9	34.9	29.7	24.4	17.5
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)