

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: P557772

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-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: P557772
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-81-96-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 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

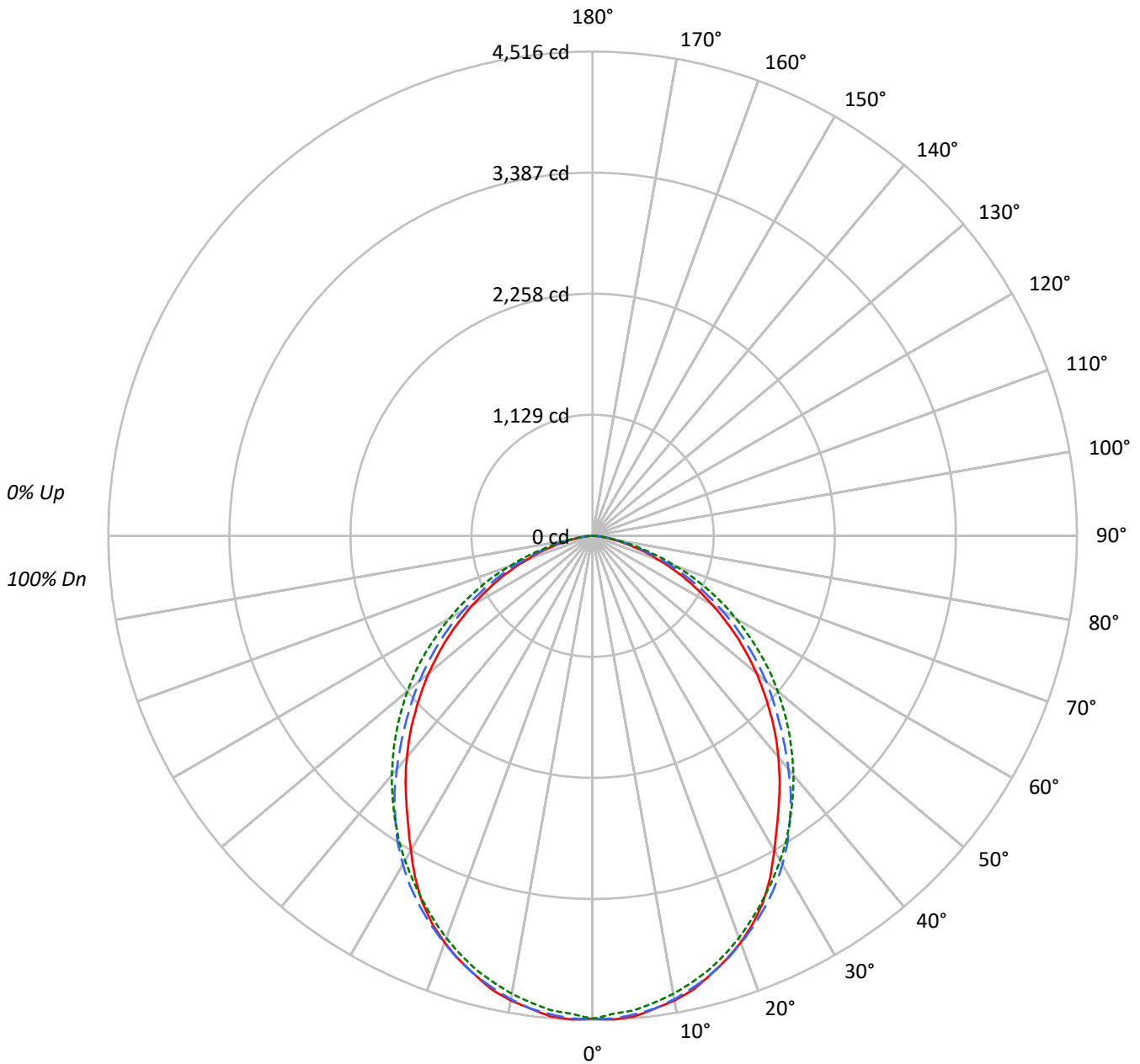
Lumens per Lamp: N/A
Luminaire Lumens: 10415.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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									
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°	12121	12121	12121
5°	12153	12102	11999
10°	12024	11991	11854
15°	11811	11811	11676
20°	11561	11576	11427
25°	11180	11319	11139
30°	10528	11001	10866
35°	9948	10545	10562
40°	9464	9975	10236
45°	8923	9371	9852
50°	8352	8831	9432
55°	7704	8216	8922
60°	6938	7497	8298
65°	6126	6666	7547
70°	5105	5677	6412
75°	4012	4534	5020
80°	2870	3191	3539
85°	1871	1871	1763



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	424.1	4.1
10°-20°	1191.4	11.4
20°-30°	1741.0	16.7
30°-40°	1976.2	19.0
40°-50°	1907.7	18.3
50°-60°	1573.8	15.1
60°-70°	1048.0	10.1
70°-80°	469.0	4.5
80°-90°	83.9	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°	3356.5	32.2
0°-40°	5332.7	51.2
0°-60°	8814.2	84.6
0°-90°	10415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10415.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4504	4504	4504	4504	4504	
5°	4499	4497	4480	4456	4442	426
15°	4240	4250	4240	4220	4191	1195
25°	3765	3795	3812	3784	3752	1724
35°	3028	3070	3210	3227	3215	1897
45°	2345	2384	2462	2575	2589	1809
55°	1642	1670	1751	1848	1902	1466
65°	962	988	1047	1121	1185	954
75°	386	407	436	457	483	422
85°	61	61	61	57	57	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4504.2	4504.2	4504.2	4504.2	4504.2
2.5°	4516.3	4518.1	4507.7	4480.0	4462.7
5°	4499.0	4497.3	4480.0	4455.8	4441.9
7.5°	4448.8	4452.3	4447.1	4412.5	4393.5
10°	4400.4	4402.1	4388.3	4360.6	4338.1
12.5°	4338.1	4336.4	4317.3	4303.5	4267.2
15°	4239.5	4249.9	4239.5	4220.4	4191.0
17.5°	4144.3	4144.3	4151.2	4118.3	4095.8
20°	4037.0	4042.2	4042.2	4016.2	3990.3
22.5°	3912.4	3928.0	3933.2	3905.5	3874.4
25°	3765.3	3794.8	3812.1	3784.4	3751.5
27.5°	3587.1	3632.1	3684.0	3663.2	3626.9
30°	3388.1	3453.9	3540.4	3523.1	3497.1
32.5°	3199.5	3265.3	3384.7	3377.7	3363.9
35°	3028.2	3069.7	3209.9	3227.2	3215.1
37.5°	2865.5	2903.6	3035.1	3074.9	3064.5
40°	2694.2	2735.8	2839.6	2910.5	2914.0
42.5°	2524.6	2564.4	2649.2	2751.3	2751.3
45°	2344.7	2384.5	2462.4	2574.8	2588.7
47.5°	2168.2	2209.7	2285.9	2398.3	2420.8
50°	1995.1	2033.2	2109.4	2218.4	2253.0
52.5°	1815.2	1856.7	1931.1	2031.5	2081.7
55°	1642.1	1669.8	1751.2	1848.1	1901.7
57.5°	1462.2	1488.1	1579.9	1662.9	1718.3
60°	1289.1	1322.0	1393.0	1477.8	1541.8
62.5°	1123.0	1157.6	1218.2	1292.6	1365.3
65°	962.1	988.1	1046.9	1121.3	1185.3
67.5°	806.4	828.9	887.7	939.6	1007.1
70°	648.9	678.3	721.6	771.8	815.0
72.5°	522.6	534.7	571.0	607.4	652.4
75°	385.9	406.6	436.1	456.8	482.8
77.5°	276.9	289.0	306.3	323.6	347.8
80°	185.2	190.3	205.9	209.4	228.4
82.5°	112.5	115.9	119.4	121.1	128.0
85°	60.6	60.6	60.6	57.1	57.1
87.5°	34.6	34.6	29.4	24.2	17.3
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)