

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: P558405

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-81-86-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: P558405
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-50-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

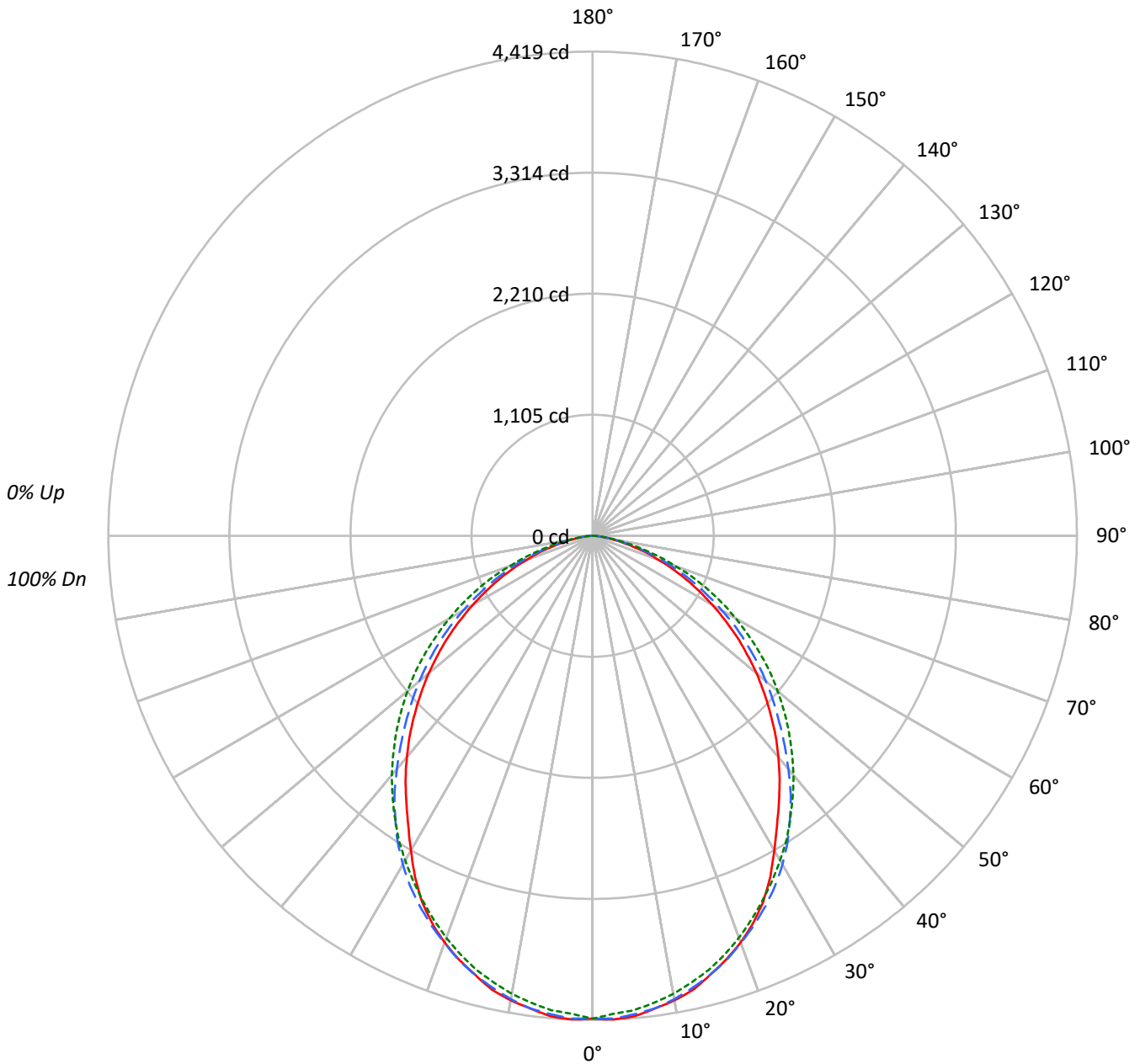
Lumens per Lamp: N/A
Luminaire Lumens: 10190.0 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11859	11859	11859
5°	11890	11840	11740
10°	11764	11732	11598
15°	11556	11556	11424
20°	11311	11326	11180
25°	10938	11074	10898
30°	10300	10763	10632
35°	9733	10317	10334
40°	9260	9759	10015
45°	8730	9168	9638
50°	8172	8640	9228
55°	7538	8038	8729
60°	6788	7335	8119
65°	5994	6522	7384
70°	4995	5555	6274
75°	3925	4435	4912
80°	2808	3123	3464
85°	1831	1831	1726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	414.9	4.1
10°-20°	1165.6	11.4
20°-30°	1703.4	16.7
30°-40°	1933.5	19.0
40°-50°	1866.5	18.3
50°-60°	1539.8	15.1
60°-70°	1025.4	10.1
70°-80°	458.8	4.5
80°-90°	82.1	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°	3283.9	32.2
0°-40°	5217.5	51.2
0°-60°	8623.7	84.6
0°-90°	10190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4407	4407	4407	4407	4407	
5°	4402	4400	4383	4360	4346	417
15°	4148	4158	4148	4129	4100	1169
25°	3684	3713	3730	3703	3670	1687
35°	2963	3003	3140	3158	3146	1856
45°	2294	2333	2409	2519	2533	1770
55°	1607	1634	1713	1808	1861	1434
65°	941	967	1024	1097	1160	933
75°	378	398	427	447	472	413
85°	59	59	59	56	56	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4406.9	4406.9	4406.9	4406.9	4406.9
2.5°	4418.8	4420.5	4410.3	4383.2	4366.3
5°	4401.8	4400.1	4383.2	4359.5	4346.0
7.5°	4352.7	4356.1	4351.0	4317.2	4298.6
10°	4305.3	4307.0	4293.5	4266.4	4244.4
12.5°	4244.4	4242.7	4224.1	4210.5	4175.0
15°	4147.9	4158.0	4147.9	4129.3	4100.5
17.5°	4054.8	4054.8	4061.5	4029.4	4007.4
20°	3949.8	3954.9	3954.9	3929.5	3904.1
22.5°	3827.9	3843.1	3848.2	3821.1	3790.7
25°	3684.0	3712.8	3729.7	3702.6	3670.5
27.5°	3509.6	3553.6	3604.4	3584.1	3548.6
30°	3314.9	3379.3	3463.9	3447.0	3421.6
32.5°	3130.4	3194.7	3311.5	3304.8	3291.2
35°	2962.8	3003.4	3140.5	3157.5	3145.6
37.5°	2803.6	2840.9	2969.5	3008.5	2998.3
40°	2636.0	2676.7	2778.2	2847.6	2851.0
42.5°	2470.1	2509.0	2592.0	2691.9	2691.9
45°	2294.0	2333.0	2409.2	2519.2	2532.7
47.5°	2121.3	2162.0	2236.5	2346.5	2368.5
50°	1952.0	1989.3	2063.8	2170.4	2204.3
52.5°	1776.0	1816.6	1889.4	1987.6	2036.7
55°	1606.7	1633.8	1713.3	1808.1	1860.6
57.5°	1430.6	1456.0	1545.7	1627.0	1681.2
60°	1261.3	1293.5	1362.9	1445.8	1508.5
62.5°	1098.8	1132.6	1191.9	1264.7	1335.8
65°	941.3	966.7	1024.3	1097.1	1159.7
67.5°	788.9	811.0	868.5	919.3	985.3
70°	634.9	663.7	706.0	755.1	797.4
72.5°	511.3	523.1	558.7	594.2	638.3
75°	377.5	397.9	426.6	447.0	472.4
77.5°	270.9	282.7	299.7	316.6	340.3
80°	181.2	186.2	201.5	204.9	223.5
82.5°	110.0	113.4	116.8	118.5	125.3
85°	59.3	59.3	59.3	55.9	55.9
87.5°	33.9	33.9	28.8	23.7	16.9
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)