

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: P556760

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-82-88-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: P556760
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-LD4-1STD-35-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

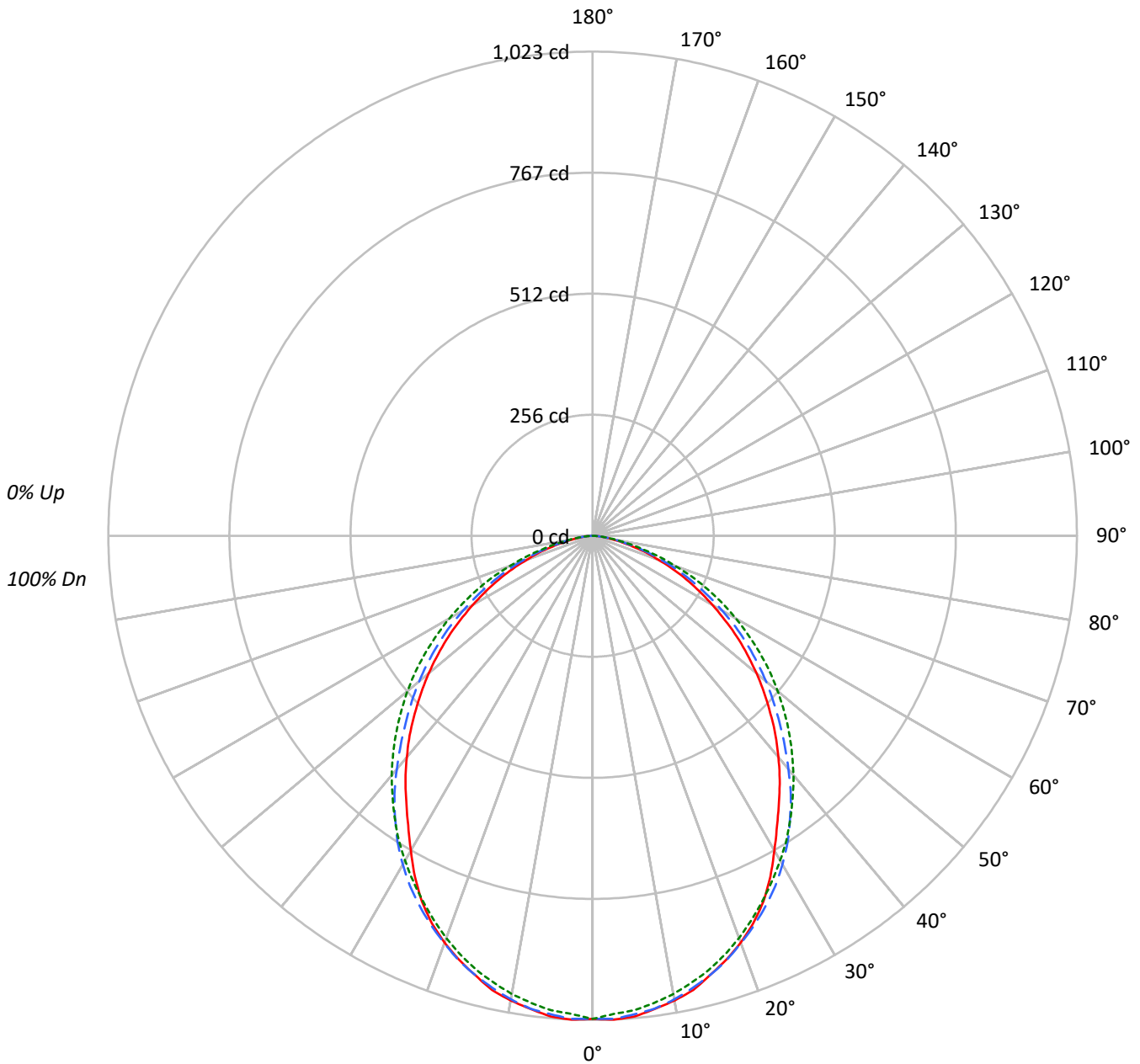
Lumens per Lamp: N/A
Luminaire Lumens: 2360.0 lumens
Efficiency: N/A
Efficacy: 70.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2746	2746	2746
5°	2754	2742	2719
10°	2725	2717	2686
15°	2676	2676	2646
20°	2620	2623	2589
25°	2533	2565	2524
30°	2385	2493	2462
35°	2254	2389	2393
40°	2145	2260	2320
45°	2022	2124	2232
50°	1893	2001	2137
55°	1746	1862	2022
60°	1572	1699	1880
65°	1388	1510	1710
70°	1157	1286	1453
75°	909	1027	1137
80°	651	724	803
85°	423	423	398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.1	4.1
10°-20°	270.0	11.4
20°-30°	394.5	16.7
30°-40°	447.8	19.0
40°-50°	432.3	18.3
50°-60°	356.6	15.1
60°-70°	237.5	10.1
70°-80°	106.3	4.5
80°-90°	19.0	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°	760.6	32.2
0°-40°	1208.4	51.2
0°-60°	1997.2	84.6
0°-90°	2360.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2360.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1021	1021	1021	1021	1021	
5°	1020	1019	1015	1010	1006	96
15°	961	963	961	956	950	271
25°	853	860	864	858	850	391
35°	686	696	727	731	728	430
45°	531	540	558	583	587	410
55°	372	378	397	419	431	332
65°	218	224	237	254	269	216
75°	87	92	99	104	109	96
85°	14	14	14	13	13	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1020.6	1020.6	1020.6	1020.6	1020.6
2.5°	1023.4	1023.8	1021.4	1015.1	1011.2
5°	1019.5	1019.1	1015.1	1009.7	1006.5
7.5°	1008.1	1008.9	1007.7	999.9	995.5
10°	997.1	997.5	994.4	988.1	983.0
12.5°	983.0	982.6	978.3	975.2	966.9
15°	960.6	963.0	960.6	956.3	949.7
17.5°	939.1	939.1	940.7	933.2	928.1
20°	914.8	915.9	915.9	910.1	904.2
22.5°	886.5	890.1	891.2	885.0	877.9
25°	853.2	859.9	863.8	857.5	850.1
27.5°	812.8	823.0	834.8	830.1	821.8
30°	767.7	782.6	802.2	798.3	792.4
32.5°	725.0	739.9	766.9	765.4	762.2
35°	686.2	695.6	727.3	731.3	728.5
37.5°	649.3	657.9	687.7	696.8	694.4
40°	610.5	619.9	643.4	659.5	660.3
42.5°	572.1	581.1	600.3	623.4	623.4
45°	531.3	540.3	558.0	583.4	586.6
47.5°	491.3	500.7	518.0	543.5	548.5
50°	452.1	460.7	478.0	502.7	510.5
52.5°	411.3	420.7	437.6	460.3	471.7
55°	372.1	378.4	396.8	418.8	430.9
57.5°	331.3	337.2	358.0	376.8	389.4
60°	292.1	299.6	315.6	334.9	349.4
62.5°	254.5	262.3	276.0	292.9	309.4
65°	218.0	223.9	237.2	254.1	268.6
67.5°	182.7	187.8	201.1	212.9	228.2
70°	147.0	153.7	163.5	174.9	184.7
72.5°	118.4	121.2	129.4	137.6	147.8
75°	87.4	92.1	98.8	103.5	109.4
77.5°	62.7	65.5	69.4	73.3	78.8
80°	42.0	43.1	46.7	47.4	51.8
82.5°	25.5	26.3	27.1	27.4	29.0
85°	13.7	13.7	13.7	12.9	12.9
87.5°	7.8	7.8	6.7	5.5	3.9
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)