

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: P558225

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-84-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: P558225
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-30-UNV-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

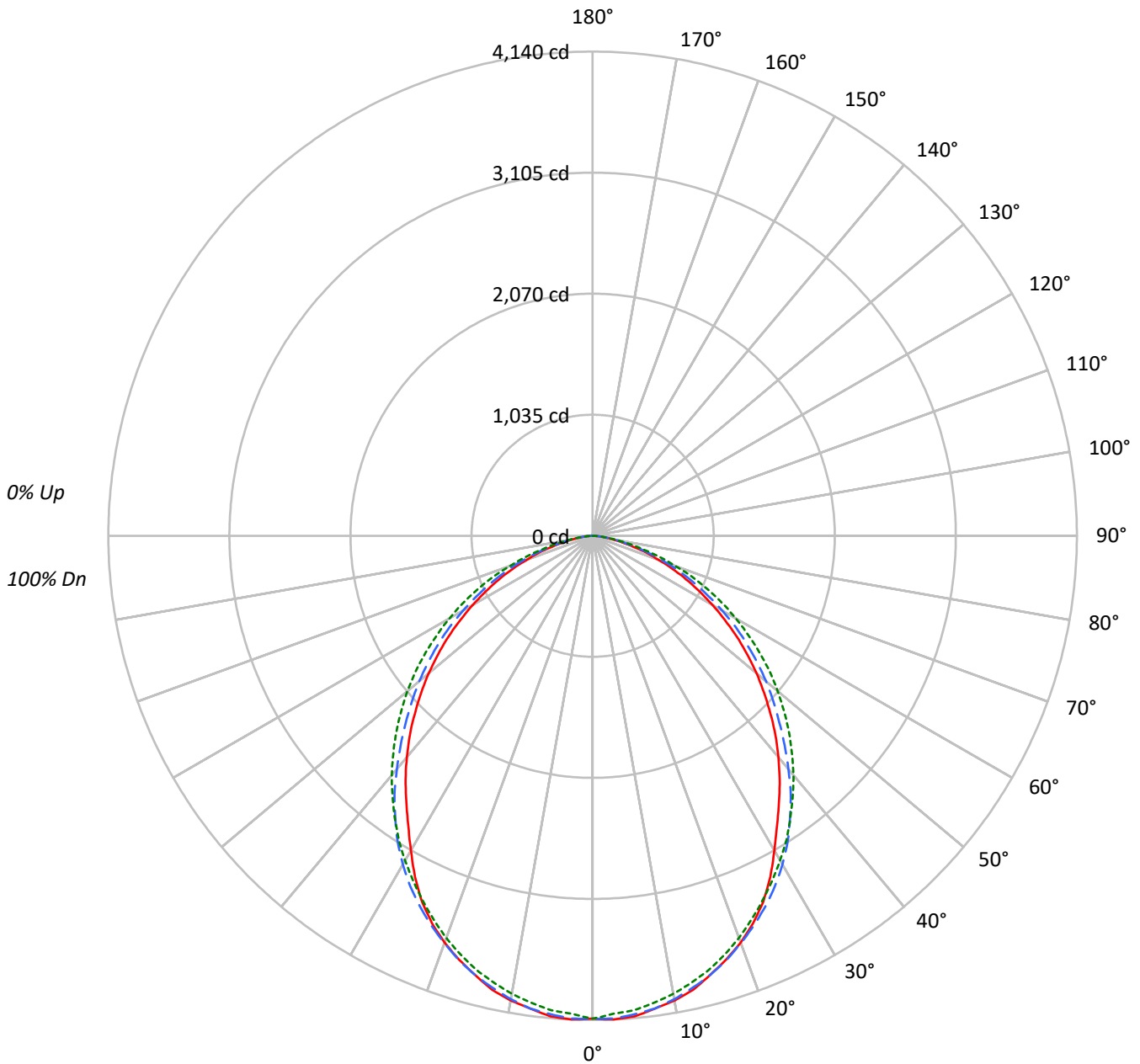
Lumens per Lamp: N/A
Luminaire Lumens: 9548.0 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11112	11112	11112
5°	11141	11094	11000
10°	11023	10993	10867
15°	10828	10828	10704
20°	10598	10612	10476
25°	10249	10376	10212
30°	9652	10085	9962
35°	9120	9667	9682
40°	8676	9145	9384
45°	8180	8591	9031
50°	7657	8096	8647
55°	7063	7532	8179
60°	6360	6873	7607
65°	5616	6111	6919
70°	4681	5205	5879
75°	3679	4157	4602
80°	2630	2926	3245
85°	1714	1714	1615



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	388.8	4.1
10°-20°	1092.2	11.4
20°-30°	1596.1	16.7
30°-40°	1811.7	19.0
40°-50°	1748.9	18.3
50°-60°	1442.7	15.1
60°-70°	960.7	10.1
70°-80°	429.9	4.5
80°-90°	76.9	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°	3077.0	32.2
0°-40°	4888.8	51.2
0°-60°	8080.4	84.6
0°-90°	9548.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9548.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4129	4129	4129	4129	4129	
5°	4124	4123	4107	4085	4072	390
15°	3887	3896	3887	3869	3842	1096
25°	3452	3479	3495	3469	3439	1581
35°	2776	2814	2943	2958	2947	1739
45°	2150	2186	2257	2360	2373	1658
55°	1505	1531	1605	1694	1743	1344
65°	882	906	960	1028	1087	875
75°	354	373	400	419	443	387
85°	56	56	56	52	52	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4129.3	4129.3	4129.3	4129.3	4129.3
2.5°	4140.4	4142.0	4132.4	4107.1	4091.2
5°	4124.5	4122.9	4107.1	4084.8	4072.2
7.5°	4078.5	4081.7	4076.9	4045.2	4027.7
10°	4034.1	4035.7	4023.0	3997.6	3977.0
12.5°	3977.0	3975.4	3957.9	3945.2	3911.9
15°	3886.6	3896.1	3886.6	3869.1	3842.1
17.5°	3799.3	3799.3	3805.6	3775.5	3754.9
20°	3700.9	3705.7	3705.7	3681.9	3658.1
22.5°	3586.7	3601.0	3605.8	3580.4	3551.8
25°	3451.9	3478.9	3494.7	3469.3	3439.2
27.5°	3288.5	3329.7	3377.3	3358.3	3325.0
30°	3106.1	3166.4	3245.7	3229.8	3206.0
32.5°	2933.2	2993.4	3102.9	3096.6	3083.9
35°	2776.1	2814.2	2942.7	2958.5	2947.4
37.5°	2627.0	2661.9	2782.5	2818.9	2809.4
40°	2469.9	2508.0	2603.2	2668.2	2671.4
42.5°	2314.5	2351.0	2428.7	2522.3	2522.3
45°	2149.5	2186.0	2257.4	2360.5	2373.2
47.5°	1987.7	2025.8	2095.6	2198.7	2219.3
50°	1829.1	1864.0	1933.8	2033.7	2065.4
52.5°	1664.1	1702.2	1770.4	1862.4	1908.4
55°	1505.4	1530.8	1605.4	1694.2	1743.4
57.5°	1340.5	1364.3	1448.3	1524.5	1575.2
60°	1181.8	1212.0	1277.0	1354.7	1413.4
62.5°	1029.5	1061.3	1116.8	1185.0	1251.6
65°	882.0	905.8	959.7	1028.0	1086.6
67.5°	739.2	759.9	813.8	861.4	923.3
70°	594.9	621.8	661.5	707.5	747.2
72.5°	479.1	490.2	523.5	556.8	598.1
75°	353.8	372.8	399.8	418.8	442.6
77.5°	253.8	264.9	280.8	296.6	318.9
80°	169.7	174.5	188.8	191.9	209.4
82.5°	103.1	106.3	109.5	111.0	117.4
85°	55.5	55.5	55.5	52.3	52.3
87.5°	31.7	31.7	27.0	22.2	15.9
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)