

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: P557920

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-93-84-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: P557920
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-50-UNV-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

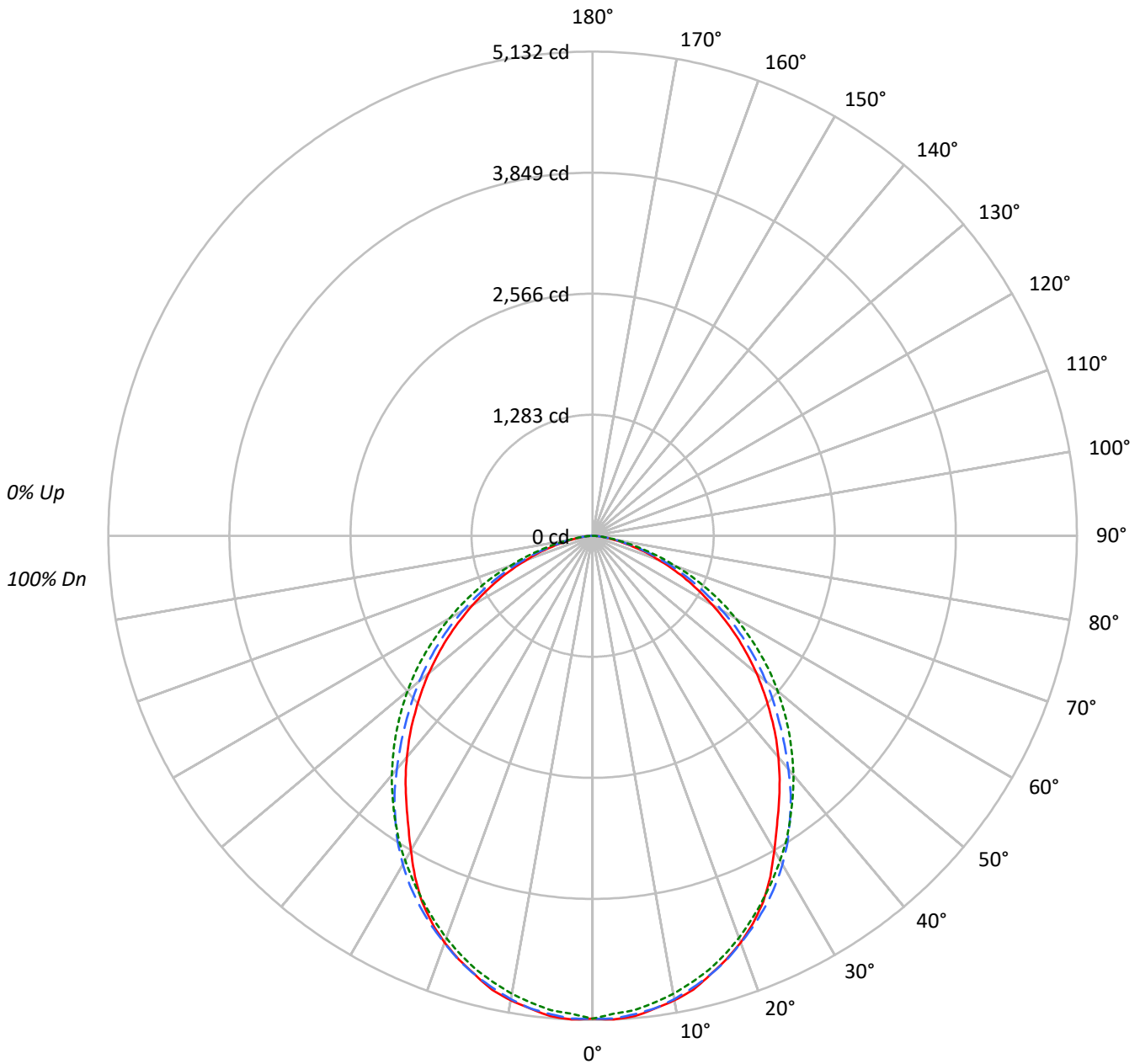
Lumens per Lamp: N/A
Luminaire Lumens: 11835.0 lumens
Efficiency: N/A
Efficacy: 91.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	13773	13773	13773
5°	13810	13752	13635
10°	13664	13626	13470
15°	13421	13421	13268
20°	13137	13154	12985
25°	12704	12862	12658
30°	11963	12501	12348
35°	11304	11982	12002
40°	10755	11335	11632
45°	10140	10649	11195
50°	9491	10034	10718
55°	8754	9336	10139
60°	7884	8519	9429
65°	6961	7575	8576
70°	5802	6452	7286
75°	4559	5152	5704
80°	3261	3626	4023
85°	2124	2124	2004



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	481.9	4.1
10°-20°	1353.8	11.4
20°-30°	1978.4	16.7
30°-40°	2245.7	19.0
40°-50°	2167.8	18.3
50°-60°	1788.3	15.1
60°-70°	1190.9	10.1
70°-80°	532.9	4.5
80°-90°	95.3	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°	3814.1	32.2
0°-40°	6059.7	51.2
0°-60°	10015.9	84.6
0°-90°	11835.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5118	5118	5118	5118	5118	
5°	5112	5110	5091	5063	5048	484
15°	4818	4829	4818	4796	4762	1358
25°	4279	4312	4332	4300	4263	1959
35°	3441	3488	3648	3667	3653	2156
45°	2664	2710	2798	2926	2942	2056
55°	1866	1898	1990	2100	2161	1665
65°	1093	1123	1190	1274	1347	1084
75°	438	462	496	519	549	479
85°	69	69	69	65	65	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5118.3	5118.3	5118.3	5118.3	5118.3
2.5°	5132.1	5134.1	5122.3	5090.8	5071.1
5°	5112.4	5110.5	5090.8	5063.3	5047.5
7.5°	5055.4	5059.3	5053.4	5014.1	4992.5
10°	5000.4	5002.3	4986.6	4955.1	4929.6
12.5°	4929.6	4927.6	4906.0	4890.2	4848.9
15°	4817.5	4829.3	4817.5	4795.9	4762.4
17.5°	4709.3	4709.3	4717.2	4679.8	4654.3
20°	4587.4	4593.3	4593.3	4563.8	4534.3
22.5°	4445.9	4463.5	4469.4	4438.0	4402.6
25°	4278.7	4312.1	4331.8	4300.3	4263.0
27.5°	4076.2	4127.3	4186.3	4162.7	4121.4
30°	3850.1	3924.8	4023.1	4003.4	3973.9
32.5°	3635.7	3710.4	3846.1	3838.3	3822.5
35°	3441.1	3488.3	3647.5	3667.2	3653.4
37.5°	3256.2	3299.5	3448.9	3494.2	3482.4
40°	3061.6	3108.8	3226.7	3307.4	3311.3
42.5°	2868.9	2914.1	3010.4	3126.4	3126.4
45°	2664.4	2709.6	2798.1	2925.9	2941.6
47.5°	2463.8	2511.0	2597.5	2725.3	2750.9
50°	2267.2	2310.4	2396.9	2520.8	2560.1
52.5°	2062.7	2109.9	2194.4	2308.5	2365.5
55°	1866.0	1897.5	1989.9	2100.0	2161.0
57.5°	1661.5	1691.0	1795.3	1889.6	1952.6
60°	1464.9	1502.3	1582.9	1679.2	1752.0
62.5°	1276.1	1315.5	1384.3	1468.8	1551.4
65°	1093.3	1122.8	1189.6	1274.2	1346.9
67.5°	916.3	941.9	1008.7	1067.7	1144.4
70°	737.4	770.8	820.0	877.0	926.1
72.5°	593.8	607.6	648.9	690.2	741.3
75°	438.5	462.1	495.5	519.1	548.6
77.5°	314.6	328.4	348.0	367.7	395.2
80°	210.4	216.3	234.0	237.9	259.6
82.5°	127.8	131.7	135.7	137.6	145.5
85°	68.8	68.8	68.8	64.9	64.9
87.5°	39.3	39.3	33.4	27.5	19.7
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)