

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: P557036

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-93-96-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: P557036
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-LD4-2HI-35-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

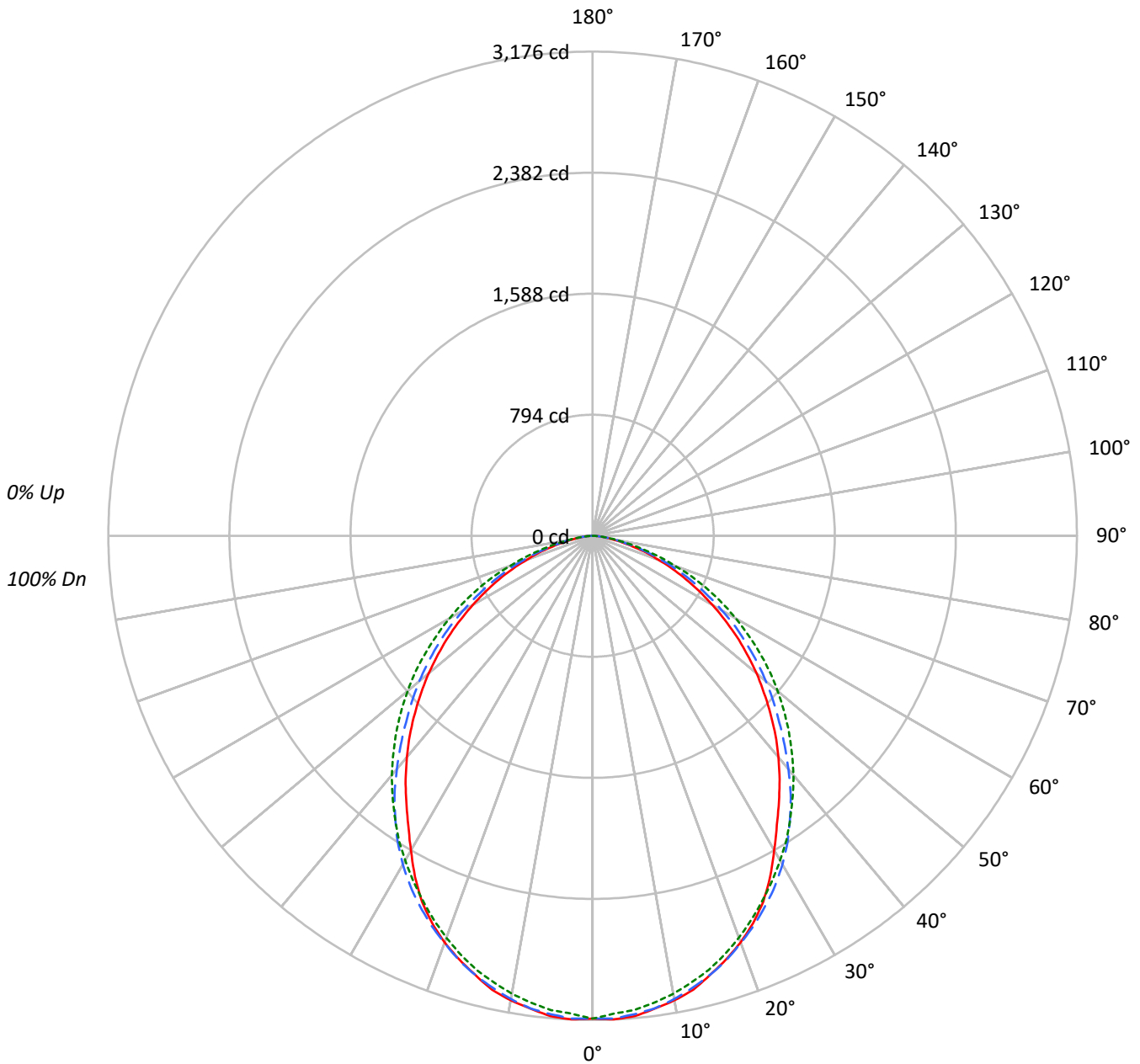
Lumens per Lamp: N/A
Luminaire Lumens: 7323.0 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8522	8522	8522
5°	8545	8509	8437
10°	8454	8431	8335
15°	8305	8305	8210
20°	8129	8139	8035
25°	7861	7958	7832
30°	7402	7735	7640
35°	6995	7414	7426
40°	6655	7014	7197
45°	6274	6589	6927
50°	5873	6209	6632
55°	5417	5777	6273
60°	4878	5271	5835
65°	4308	4687	5307
70°	3590	3992	4509
75°	2821	3188	3530
80°	2018	2244	2489
85°	1315	1315	1241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.2	4.1
10°-20°	837.7	11.4
20°-30°	1224.1	16.7
30°-40°	1389.5	19.0
40°-50°	1341.4	18.3
50°-60°	1106.5	15.1
60°-70°	736.9	10.1
70°-80°	329.7	4.5
80°-90°	59.0	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°	2360.0	32.2
0°-40°	3749.5	51.2
0°-60°	6197.4	84.6
0°-90°	7323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7323.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3167	3167	3167	3167	3167	
5°	3163	3162	3150	3133	3123	299
15°	2981	2988	2981	2968	2947	840
25°	2648	2668	2680	2661	2638	1212
35°	2129	2158	2257	2269	2261	1334
45°	1649	1677	1731	1810	1820	1272
55°	1155	1174	1231	1299	1337	1031
65°	676	695	736	788	833	671
75°	271	286	307	321	340	297
85°	43	43	43	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3167.0	3167.0	3167.0	3167.0	3167.0
2.5°	3175.5	3176.7	3169.4	3150.0	3137.8
5°	3163.4	3162.1	3150.0	3132.9	3123.2
7.5°	3128.1	3130.5	3126.9	3102.5	3089.1
10°	3094.0	3095.2	3085.5	3066.0	3050.2
12.5°	3050.2	3049.0	3035.6	3025.9	3000.3
15°	2980.9	2988.2	2980.9	2967.5	2946.8
17.5°	2913.9	2913.9	2918.8	2895.7	2879.9
20°	2838.5	2842.2	2842.2	2823.9	2805.7
22.5°	2750.9	2761.9	2765.5	2746.0	2724.1
25°	2647.5	2668.2	2680.3	2660.9	2637.8
27.5°	2522.2	2553.8	2590.3	2575.7	2550.2
30°	2382.3	2428.5	2489.3	2477.2	2458.9
32.5°	2249.6	2295.9	2379.8	2375.0	2365.2
35°	2129.2	2158.4	2256.9	2269.1	2260.6
37.5°	2014.8	2041.6	2134.1	2162.0	2154.7
40°	1894.4	1923.6	1996.6	2046.4	2048.9
42.5°	1775.1	1803.1	1862.7	1934.5	1934.5
45°	1648.6	1676.6	1731.3	1810.4	1820.1
47.5°	1524.5	1553.7	1607.2	1686.3	1702.1
50°	1402.8	1429.6	1483.1	1559.8	1584.1
52.5°	1276.3	1305.5	1357.8	1428.4	1463.7
55°	1154.6	1174.1	1231.3	1299.4	1337.1
57.5°	1028.1	1046.3	1110.8	1169.2	1208.2
60°	906.4	929.5	979.4	1039.0	1084.1
62.5°	789.6	814.0	856.5	908.9	960.0
65°	676.5	694.7	736.1	788.4	833.4
67.5°	567.0	582.8	624.2	660.7	708.1
70°	456.3	476.9	507.4	542.6	573.1
72.5°	367.4	376.0	401.5	427.1	458.7
75°	271.3	285.9	306.6	321.2	339.5
77.5°	194.7	203.2	215.4	227.5	244.6
80°	130.2	133.8	144.8	147.2	160.6
82.5°	79.1	81.5	84.0	85.2	90.0
85°	42.6	42.6	42.6	40.2	40.2
87.5°	24.3	24.3	20.7	17.0	12.2
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)