

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: P557110

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-80-87-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: P557110
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-50-UNV-80-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

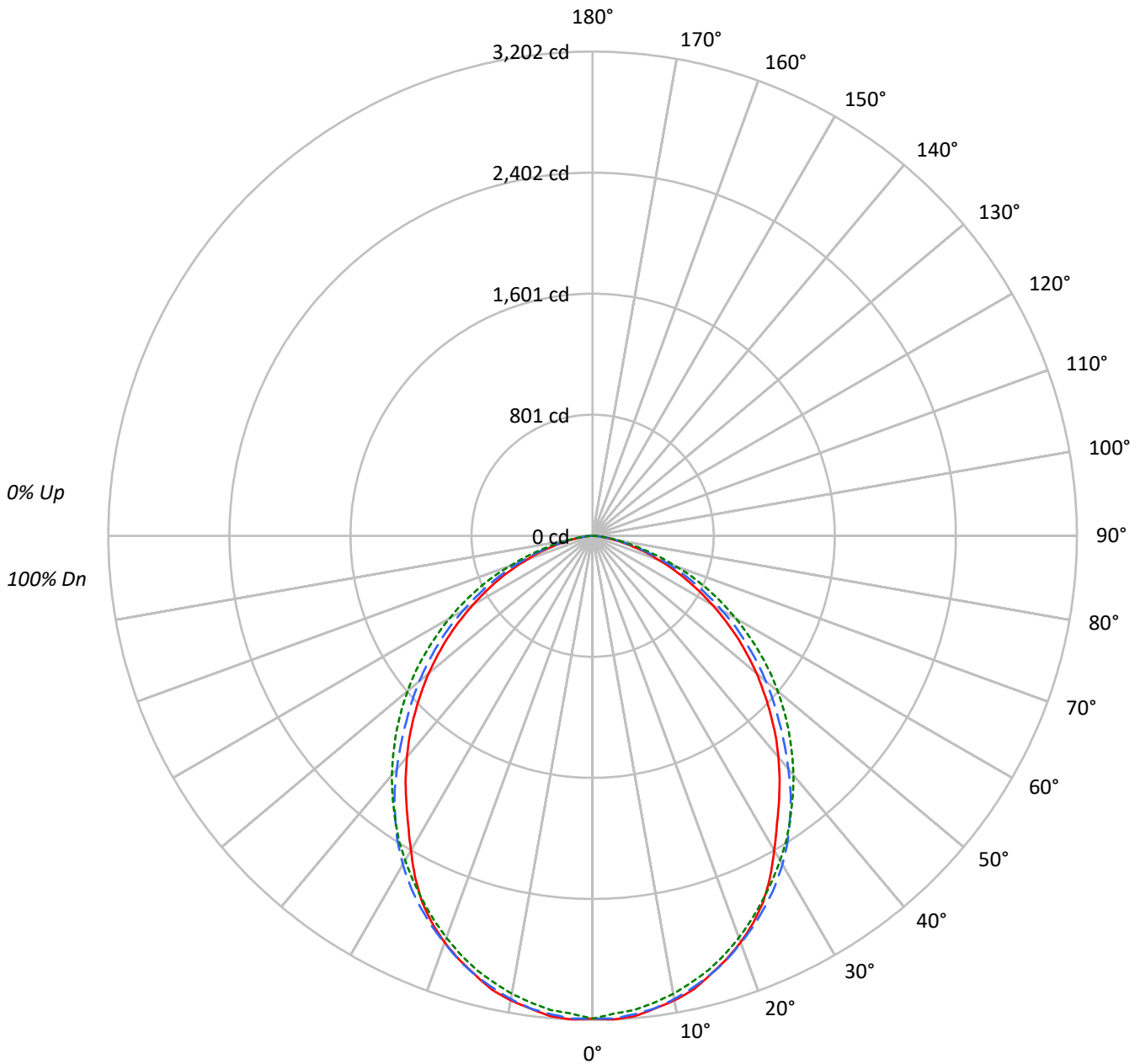
Lumens per Lamp: N/A
Luminaire Lumens: 7383.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	8592	8592	8592
5°	8615	8579	8506
10°	8524	8500	8403
15°	8372	8372	8277
20°	8195	8206	8100
25°	7925	8024	7896
30°	7463	7798	7703
35°	7052	7475	7487
40°	6709	7071	7256
45°	6325	6643	6984
50°	5921	6260	6686
55°	5461	5824	6325
60°	4919	5314	5882
65°	4343	4725	5351
70°	3619	4024	4545
75°	2844	3214	3558
80°	2035	2263	2509
85°	1325	1325	1250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.6	4.1
10°-20°	844.5	11.4
20°-30°	1234.2	16.7
30°-40°	1400.9	19.0
40°-50°	1352.4	18.3
50°-60°	1115.6	15.1
60°-70°	742.9	10.1
70°-80°	332.4	4.5
80°-90°	59.5	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°	2379.3	32.2
0°-40°	3780.2	51.2
0°-60°	6248.2	84.6
0°-90°	7383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7383.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3193	3193	3193	3193	3193	
5°	3189	3188	3176	3159	3149	302
15°	3005	3013	3005	2992	2971	847
25°	2669	2690	2702	2683	2659	1222
35°	2147	2176	2275	2288	2279	1345
45°	1662	1690	1746	1825	1835	1282
55°	1164	1184	1241	1310	1348	1039
65°	682	700	742	795	840	676
75°	274	288	309	324	342	299
85°	43	43	43	40	40	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3193.0	3193.0	3193.0	3193.0	3193.0
2.5°	3201.5	3202.8	3195.4	3175.8	3163.5
5°	3189.3	3188.1	3175.8	3158.6	3148.8
7.5°	3153.7	3156.2	3152.5	3127.9	3114.5
10°	3119.4	3120.6	3110.8	3091.1	3075.2
12.5°	3075.2	3074.0	3060.5	3050.7	3024.9
15°	3005.3	3012.6	3005.3	2991.8	2970.9
17.5°	2937.8	2937.8	2942.7	2919.4	2903.5
20°	2861.8	2865.4	2865.4	2847.0	2828.6
22.5°	2773.4	2784.5	2788.2	2768.5	2746.5
25°	2669.2	2690.0	2702.3	2682.7	2659.4
27.5°	2542.8	2574.7	2611.5	2596.8	2571.0
30°	2401.8	2448.4	2509.7	2497.4	2479.0
32.5°	2268.1	2314.7	2399.3	2394.4	2384.6
35°	2146.6	2176.1	2275.4	2287.7	2279.1
37.5°	2031.3	2058.3	2151.5	2179.7	2172.4
40°	1909.9	1939.3	2012.9	2063.2	2065.7
42.5°	1789.7	1817.9	1878.0	1950.4	1950.4
45°	1662.1	1690.3	1745.5	1825.2	1835.1
47.5°	1537.0	1566.4	1620.4	1700.1	1716.1
50°	1414.3	1441.3	1495.3	1572.6	1597.1
52.5°	1286.8	1316.2	1368.9	1440.1	1475.7
55°	1164.1	1183.7	1241.4	1310.1	1348.1
57.5°	1036.5	1054.9	1119.9	1178.8	1218.1
60°	913.9	937.2	987.4	1047.6	1092.9
62.5°	796.1	820.6	863.6	916.3	967.8
65°	682.0	700.4	742.1	794.9	840.3
67.5°	571.6	587.6	629.3	666.1	713.9
70°	460.0	480.8	511.5	547.1	577.7
72.5°	370.4	379.0	404.8	430.6	462.4
75°	273.5	288.3	309.1	323.8	342.2
77.5°	196.3	204.8	217.1	229.4	246.6
80°	131.3	134.9	146.0	148.4	161.9
82.5°	79.7	82.2	84.6	85.9	90.8
85°	42.9	42.9	42.9	40.5	40.5
87.5°	24.5	24.5	20.9	17.2	12.3
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)