

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: P557570

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-81-85-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: P557570
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-LD4-2STD-40-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

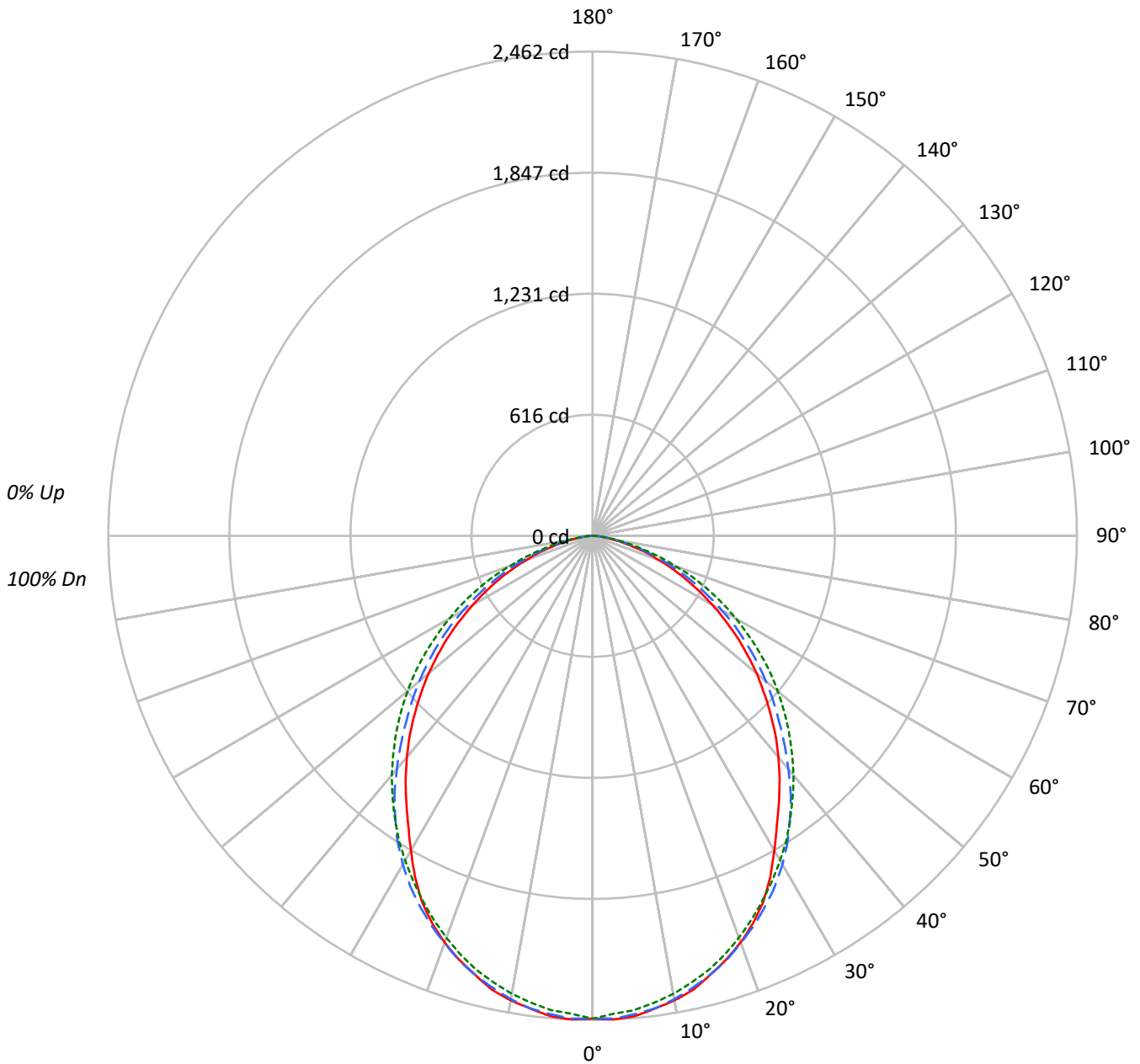
Lumens per Lamp: N/A
Luminaire Lumens: 5677.0 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6607	6607	6607
5°	6624	6596	6540
10°	6554	6536	6461
15°	6438	6438	6364
20°	6302	6310	6229
25°	6094	6170	6072
30°	5739	5996	5923
35°	5422	5748	5757
40°	5159	5437	5580
45°	4864	5108	5370
50°	4553	4814	5141
55°	4199	4478	4863
60°	3782	4087	4523
65°	3339	3633	4114
70°	2783	3094	3495
75°	2187	2471	2737
80°	1564	1739	1929
85°	1019	1019	960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.2	4.1
10°-20°	649.4	11.4
20°-30°	949.0	16.7
30°-40°	1077.2	19.0
40°-50°	1039.9	18.3
50°-60°	857.8	15.1
60°-70°	571.2	10.1
70°-80°	255.6	4.5
80°-90°	45.7	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°	1829.5	32.2
0°-40°	2906.7	51.2
0°-60°	4804.4	84.6
0°-90°	5677.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5677.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2455	2455	2455	2455	2455	
5°	2452	2451	2442	2429	2421	232
15°	2311	2316	2311	2300	2284	651
25°	2052	2068	2078	2063	2045	940
35°	1651	1673	1750	1759	1752	1034
45°	1278	1300	1342	1404	1411	986
55°	895	910	954	1007	1037	799
65°	524	539	571	611	646	520
75°	210	222	238	249	263	230
85°	33	33	33	31	31	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2455.2	2455.2	2455.2	2455.2	2455.2
2.5°	2461.8	2462.7	2457.0	2442.0	2432.5
5°	2452.3	2451.4	2442.0	2428.7	2421.2
7.5°	2425.0	2426.9	2424.0	2405.2	2394.8
10°	2398.6	2399.5	2392.0	2376.9	2364.6
12.5°	2364.6	2363.7	2353.3	2345.7	2325.9
15°	2310.8	2316.5	2310.8	2300.5	2284.4
17.5°	2259.0	2259.0	2262.7	2244.8	2232.6
20°	2200.5	2203.3	2203.3	2189.2	2175.0
22.5°	2132.6	2141.1	2143.9	2128.8	2111.8
25°	2052.4	2068.4	2077.9	2062.8	2044.9
27.5°	1955.3	1979.8	2008.1	1996.8	1977.0
30°	1846.8	1882.6	1929.8	1920.4	1906.2
32.5°	1744.0	1779.8	1844.9	1841.1	1833.6
35°	1650.6	1673.2	1749.6	1759.1	1752.5
37.5°	1561.9	1582.7	1654.4	1676.1	1670.4
40°	1468.6	1491.2	1547.8	1586.5	1588.4
42.5°	1376.1	1397.8	1444.0	1499.7	1499.7
45°	1278.0	1299.7	1342.2	1403.5	1411.0
47.5°	1181.8	1204.5	1246.0	1307.3	1319.5
50°	1087.5	1108.3	1149.8	1209.2	1228.0
52.5°	989.4	1012.1	1052.6	1107.3	1134.7
55°	895.1	910.2	954.5	1007.3	1036.6
57.5°	797.0	811.2	861.1	906.4	936.6
60°	702.7	720.6	759.3	805.5	840.4
62.5°	612.1	631.0	664.0	704.6	744.2
65°	524.4	538.6	570.6	611.2	646.1
67.5°	439.5	451.8	483.9	512.2	548.9
70°	353.7	369.7	393.3	420.7	444.2
72.5°	284.8	291.4	311.3	331.1	355.6
75°	210.3	221.7	237.7	249.0	263.2
77.5°	150.9	157.5	166.9	176.4	189.6
80°	100.9	103.8	112.2	114.1	124.5
82.5°	61.3	63.2	65.1	66.0	69.8
85°	33.0	33.0	33.0	31.1	31.1
87.5°	18.9	18.9	16.0	13.2	9.4
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)