

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: P557588

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-82-86-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: P557588
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-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

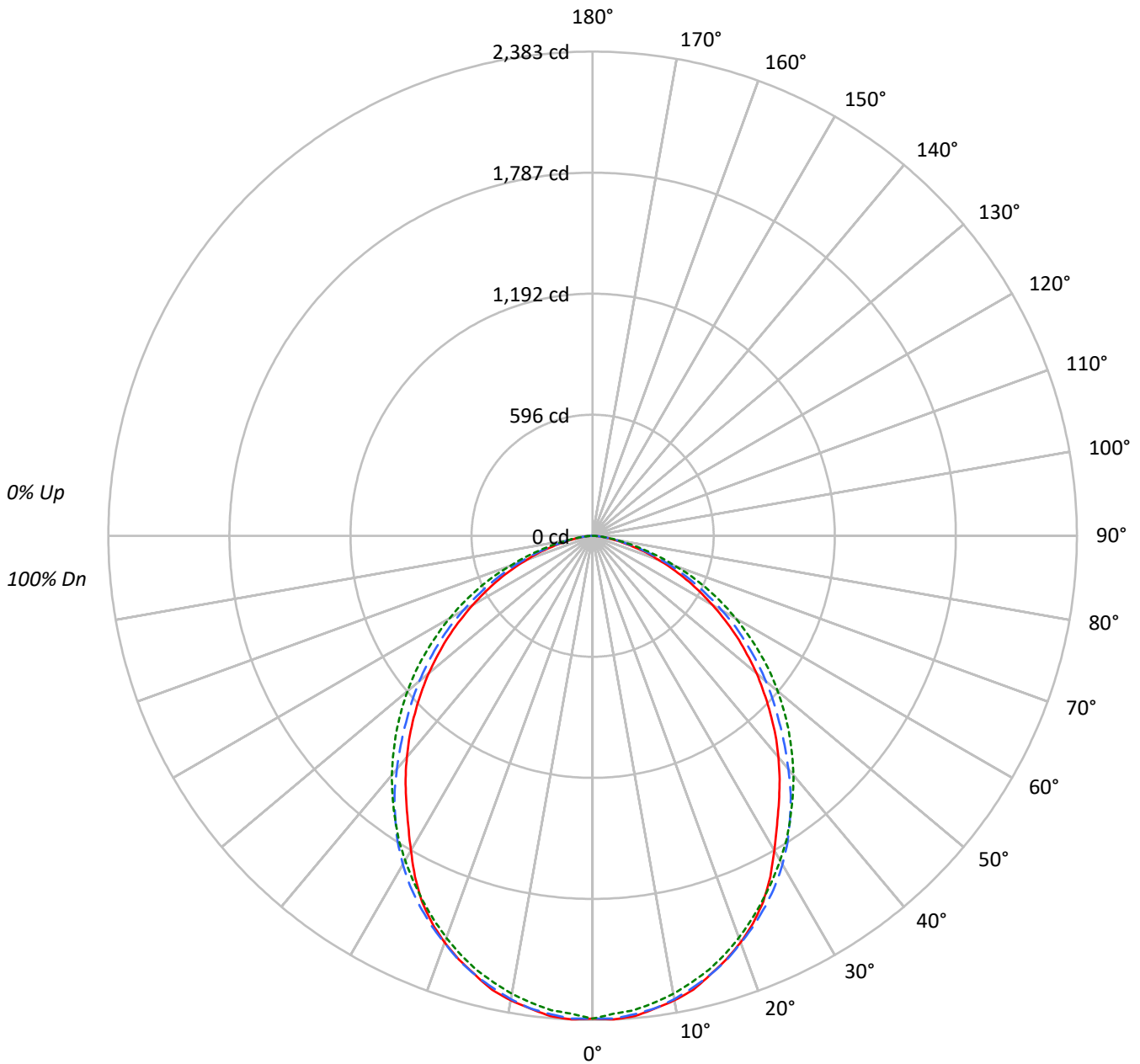
Lumens per Lamp: N/A
Luminaire Lumens: 5495.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6395	6395	6395
5°	6412	6385	6331
10°	6344	6327	6254
15°	6232	6232	6160
20°	6099	6107	6029
25°	5899	5972	5877
30°	5555	5804	5733
35°	5249	5563	5572
40°	4993	5263	5401
45°	4708	4944	5198
50°	4407	4659	4976
55°	4065	4335	4707
60°	3661	3955	4378
65°	3232	3517	3982
70°	2694	2995	3383
75°	2117	2392	2648
80°	1514	1683	1867
85°	988	988	929



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.8	4.1
10°-20°	628.6	11.4
20°-30°	918.6	16.7
30°-40°	1042.7	19.0
40°-50°	1006.5	18.3
50°-60°	830.3	15.1
60°-70°	552.9	10.1
70°-80°	247.4	4.5
80°-90°	44.3	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°	1770.9	32.2
0°-40°	2813.5	51.2
0°-60°	4650.4	84.6
0°-90°	5495.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5495.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2376	2376	2376	2376	2376	
5°	2374	2373	2364	2351	2344	225
15°	2237	2242	2237	2227	2211	631
25°	1987	2002	2011	1997	1979	910
35°	1598	1620	1694	1703	1696	1001
45°	1237	1258	1299	1358	1366	954
55°	866	881	924	975	1003	773
65°	508	521	552	592	625	503
75°	204	214	230	241	255	223
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2376.4	2376.4	2376.4	2376.4	2376.4
2.5°	2382.8	2383.7	2378.3	2363.7	2354.5
5°	2373.7	2372.8	2363.7	2350.9	2343.6
7.5°	2347.2	2349.1	2346.3	2328.1	2318.0
10°	2321.7	2322.6	2315.3	2300.7	2288.8
12.5°	2288.8	2287.9	2277.8	2270.5	2251.4
15°	2236.8	2242.2	2236.8	2226.7	2211.2
17.5°	2186.5	2186.5	2190.2	2172.9	2161.0
20°	2129.9	2132.7	2132.7	2119.0	2105.3
22.5°	2064.2	2072.4	2075.2	2060.6	2044.1
25°	1986.6	2002.1	2011.3	1996.7	1979.3
27.5°	1892.6	1916.3	1943.7	1932.7	1913.6
30°	1787.6	1822.3	1867.9	1858.8	1845.1
32.5°	1688.1	1722.8	1785.8	1782.1	1774.8
35°	1597.7	1619.6	1693.5	1702.7	1696.3
37.5°	1511.9	1532.0	1601.3	1622.3	1616.9
40°	1421.5	1443.4	1498.2	1535.6	1537.4
42.5°	1332.0	1353.0	1397.7	1451.6	1451.6
45°	1237.1	1258.1	1299.1	1358.5	1365.8
47.5°	1143.9	1165.9	1206.0	1265.4	1277.2
50°	1052.6	1072.7	1112.9	1170.4	1188.7
52.5°	957.7	979.6	1018.9	1071.8	1098.3
55°	866.4	881.0	923.9	975.0	1003.3
57.5°	771.5	785.1	833.5	877.4	906.6
60°	680.2	697.5	734.9	779.7	813.5
62.5°	592.5	610.8	642.7	682.0	720.3
65°	507.6	521.3	552.3	591.6	625.4
67.5°	425.4	437.3	468.4	495.7	531.3
70°	342.4	357.9	380.7	407.2	430.0
72.5°	275.7	282.1	301.3	320.5	344.2
75°	203.6	214.5	230.1	241.0	254.7
77.5°	146.1	152.5	161.6	170.7	183.5
80°	97.7	100.4	108.6	110.5	120.5
82.5°	59.3	61.2	63.0	63.9	67.6
85°	32.0	32.0	32.0	30.1	30.1
87.5°	18.3	18.3	15.5	12.8	9.1
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)