

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: P557612

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-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: P557612
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-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

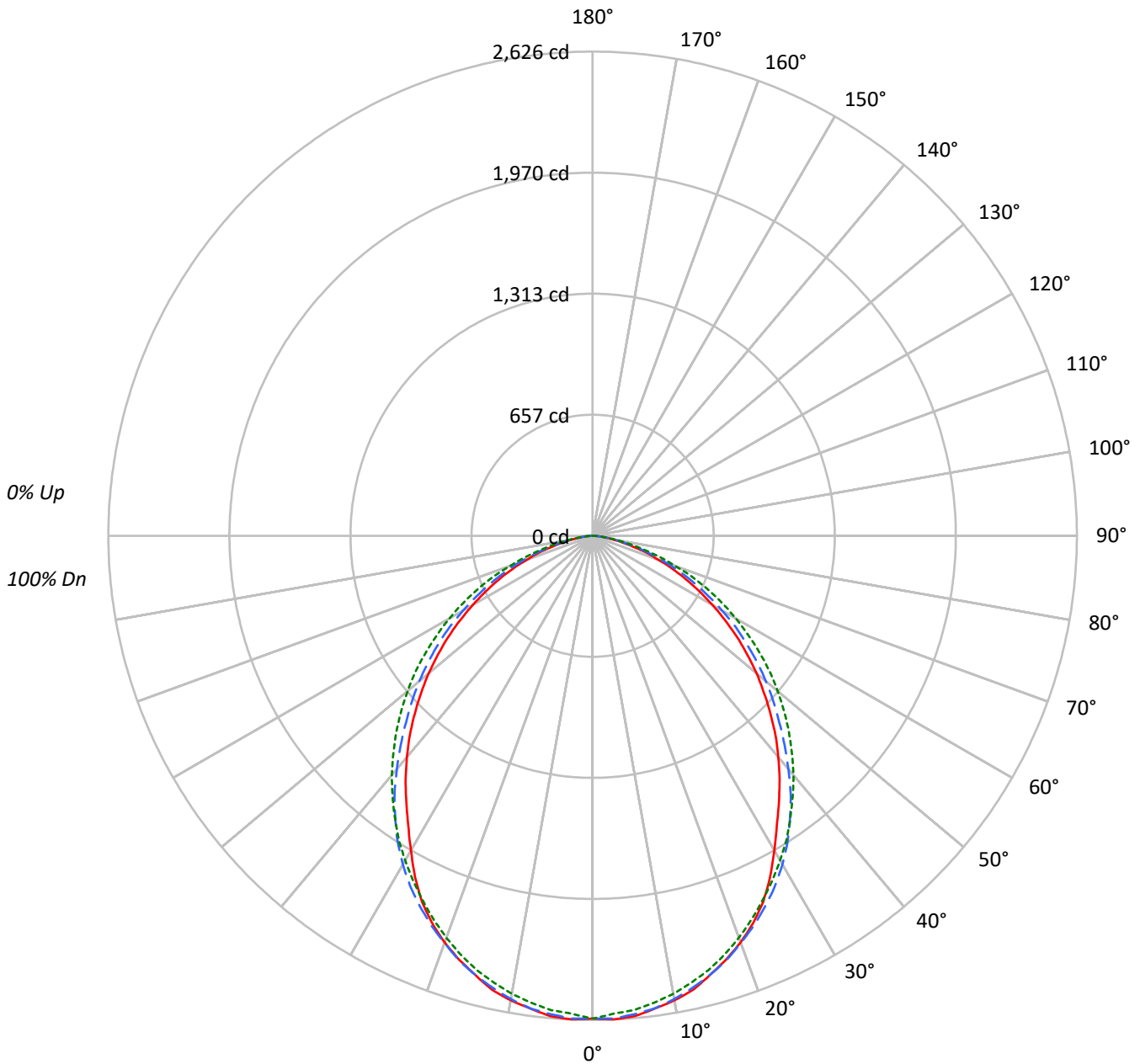
Lumens per Lamp: N/A
Luminaire Lumens: 6055.0 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7047	7047	7047
5°	7065	7035	6976
10°	6991	6971	6892
15°	6866	6866	6788
20°	6721	6730	6643
25°	6500	6580	6476
30°	6121	6396	6317
35°	5783	6130	6140
40°	5502	5799	5951
45°	5187	5448	5727
50°	4856	5134	5483
55°	4479	4776	5187
60°	4034	4358	4824
65°	3561	3875	4388
70°	2969	3301	3728
75°	2332	2636	2918
80°	1667	1855	2058
85°	1087	1087	1025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.6	4.1
10°-20°	692.6	11.4
20°-30°	1012.2	16.7
30°-40°	1148.9	19.0
40°-50°	1109.1	18.3
50°-60°	914.9	15.1
60°-70°	609.3	10.1
70°-80°	272.6	4.5
80°-90°	48.8	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°	1951.3	32.2
0°-40°	3100.3	51.2
0°-60°	5124.3	84.6
0°-90°	6055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6055.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2619	2619	2619	2619	2619	
5°	2616	2615	2604	2590	2582	248
15°	2465	2471	2465	2454	2436	695
25°	2189	2206	2216	2200	2181	1002
35°	1760	1785	1866	1876	1869	1103
45°	1363	1386	1432	1497	1505	1052
55°	955	971	1018	1074	1106	852
65°	559	574	609	652	689	555
75°	224	236	254	266	281	245
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2618.6	2618.6	2618.6	2618.6	2618.6
2.5°	2625.7	2626.7	2620.6	2604.5	2594.5
5°	2615.6	2614.6	2604.5	2590.5	2582.4
7.5°	2586.4	2588.5	2585.4	2565.3	2554.2
10°	2558.3	2559.3	2551.2	2535.1	2522.1
12.5°	2522.1	2521.0	2510.0	2501.9	2480.8
15°	2464.7	2470.7	2464.7	2453.6	2436.5
17.5°	2409.4	2409.4	2413.4	2394.3	2381.2
20°	2347.0	2350.0	2350.0	2334.9	2319.8
22.5°	2274.6	2283.6	2286.6	2270.6	2252.4
25°	2189.1	2206.2	2216.2	2200.1	2181.0
27.5°	2085.4	2111.6	2141.8	2129.7	2108.6
30°	1969.8	2008.0	2058.3	2048.2	2033.1
32.5°	1860.1	1898.3	1967.7	1963.7	1955.7
35°	1760.5	1784.7	1866.1	1876.2	1869.2
37.5°	1665.9	1688.1	1764.5	1787.7	1781.6
40°	1566.3	1590.5	1650.9	1692.1	1694.1
42.5°	1467.8	1490.9	1540.2	1599.5	1599.5
45°	1363.1	1386.3	1431.5	1496.9	1505.0
47.5°	1260.5	1284.7	1328.9	1394.3	1407.4
50°	1159.9	1182.1	1226.3	1289.7	1309.8
52.5°	1055.3	1079.4	1122.7	1181.0	1210.2
55°	954.7	970.8	1018.1	1074.4	1105.6
57.5°	850.1	865.2	918.5	966.8	999.0
60°	749.5	768.6	809.8	859.1	896.4
62.5°	652.9	673.0	708.2	751.5	793.7
65°	559.3	574.4	608.6	651.9	689.1
67.5°	468.8	481.9	516.1	546.3	585.5
70°	377.3	394.4	419.5	448.7	473.8
72.5°	303.8	310.9	332.0	353.1	379.3
75°	224.3	236.4	253.5	265.6	280.7
77.5°	161.0	168.0	178.1	188.1	202.2
80°	107.6	110.7	119.7	121.7	132.8
82.5°	65.4	67.4	69.4	70.4	74.4
85°	35.2	35.2	35.2	33.2	33.2
87.5°	20.1	20.1	17.1	14.1	10.1
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)