

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: P557478

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-93-87-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: P557478
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-30-UNV-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

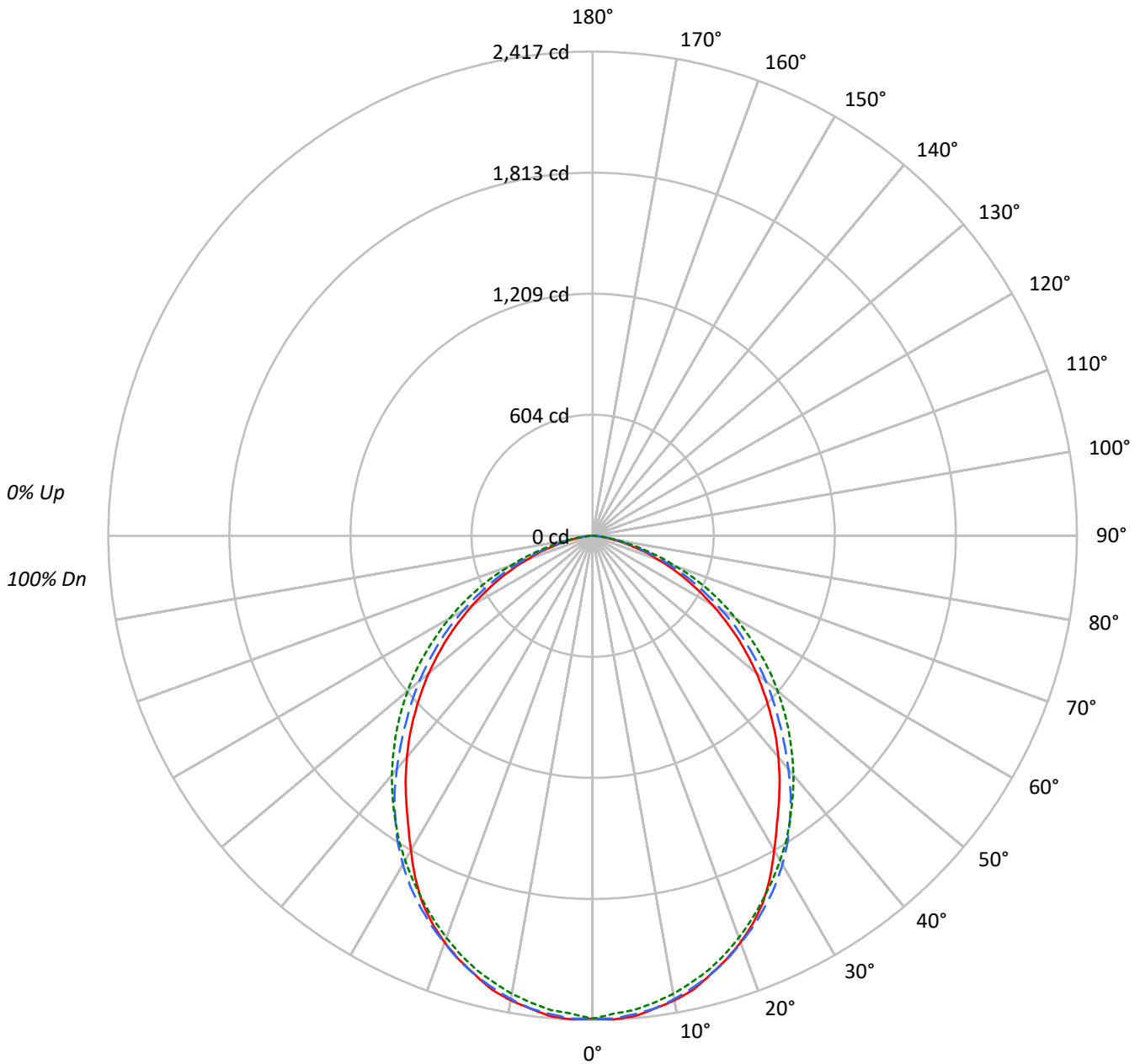
Lumens per Lamp: N/A
Luminaire Lumens: 5573.0 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6486	6486	6486
5°	6503	6475	6420
10°	6434	6416	6343
15°	6320	6320	6248
20°	6186	6194	6115
25°	5982	6057	5960
30°	5633	5886	5815
35°	5323	5642	5652
40°	5064	5337	5478
45°	4775	5014	5272
50°	4469	4725	5047
55°	4122	4396	4774
60°	3712	4012	4440
65°	3278	3567	4039
70°	2732	3038	3431
75°	2147	2426	2686
80°	1536	1708	1894
85°	1000	1000	945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.9	4.1
10°-20°	637.5	11.4
20°-30°	931.6	16.7
30°-40°	1057.5	19.0
40°-50°	1020.8	18.3
50°-60°	842.1	15.1
60°-70°	560.8	10.1
70°-80°	250.9	4.5
80°-90°	44.9	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°	1796.0	32.2
0°-40°	2853.5	51.2
0°-60°	4716.4	84.6
0°-90°	5573.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5573.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2410	2410	2410	2410	2410	
5°	2407	2406	2397	2384	2377	228
15°	2268	2274	2268	2258	2243	640
25°	2015	2030	2040	2025	2007	923
35°	1620	1643	1718	1727	1720	1015
45°	1255	1276	1318	1378	1385	968
55°	879	894	937	989	1018	784
65°	515	529	560	600	634	510
75°	206	218	233	244	258	226
85°	32	32	32	31	31	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2410.2	2410.2	2410.2	2410.2	2410.2
2.5°	2416.7	2417.6	2412.0	2397.2	2388.0
5°	2407.4	2406.5	2397.2	2384.3	2376.8
7.5°	2380.5	2382.4	2379.6	2361.1	2350.9
10°	2354.6	2355.5	2348.1	2333.3	2321.3
12.5°	2321.3	2320.4	2310.2	2302.8	2283.3
15°	2268.5	2274.1	2268.5	2258.3	2242.6
17.5°	2217.6	2217.6	2221.3	2203.7	2191.7
20°	2160.2	2163.0	2163.0	2149.1	2135.2
22.5°	2093.5	2101.8	2104.6	2089.8	2073.1
25°	2014.8	2030.5	2039.8	2025.0	2007.4
27.5°	1919.4	1943.5	1971.3	1960.2	1940.7
30°	1813.0	1848.1	1894.4	1885.2	1871.3
32.5°	1712.0	1747.2	1811.1	1807.4	1800.0
35°	1620.4	1642.6	1717.6	1726.8	1720.4
37.5°	1533.3	1553.7	1624.1	1645.4	1639.8
40°	1441.7	1463.9	1519.4	1557.4	1559.3
42.5°	1350.9	1372.2	1417.6	1472.2	1472.2
45°	1254.6	1275.9	1317.6	1377.8	1385.2
47.5°	1160.2	1182.4	1223.1	1283.3	1295.4
50°	1067.6	1088.0	1128.7	1187.0	1205.6
52.5°	971.3	993.5	1033.3	1087.0	1113.9
55°	878.7	893.5	937.0	988.9	1017.6
57.5°	782.4	796.3	845.4	889.8	919.4
60°	689.8	707.4	745.4	790.7	825.0
62.5°	600.9	619.4	651.9	691.7	730.6
65°	514.8	528.7	560.2	600.0	634.3
67.5°	431.5	443.5	475.0	502.8	538.9
70°	347.2	363.0	386.1	413.0	436.1
72.5°	279.6	286.1	305.6	325.0	349.1
75°	206.5	217.6	233.3	244.4	258.3
77.5°	148.1	154.6	163.9	173.1	186.1
80°	99.1	101.9	110.2	112.0	122.2
82.5°	60.2	62.0	63.9	64.8	68.5
85°	32.4	32.4	32.4	30.6	30.6
87.5°	18.5	18.5	15.7	13.0	9.3
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)