

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: P557516

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-81-96-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: P557516
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-35-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

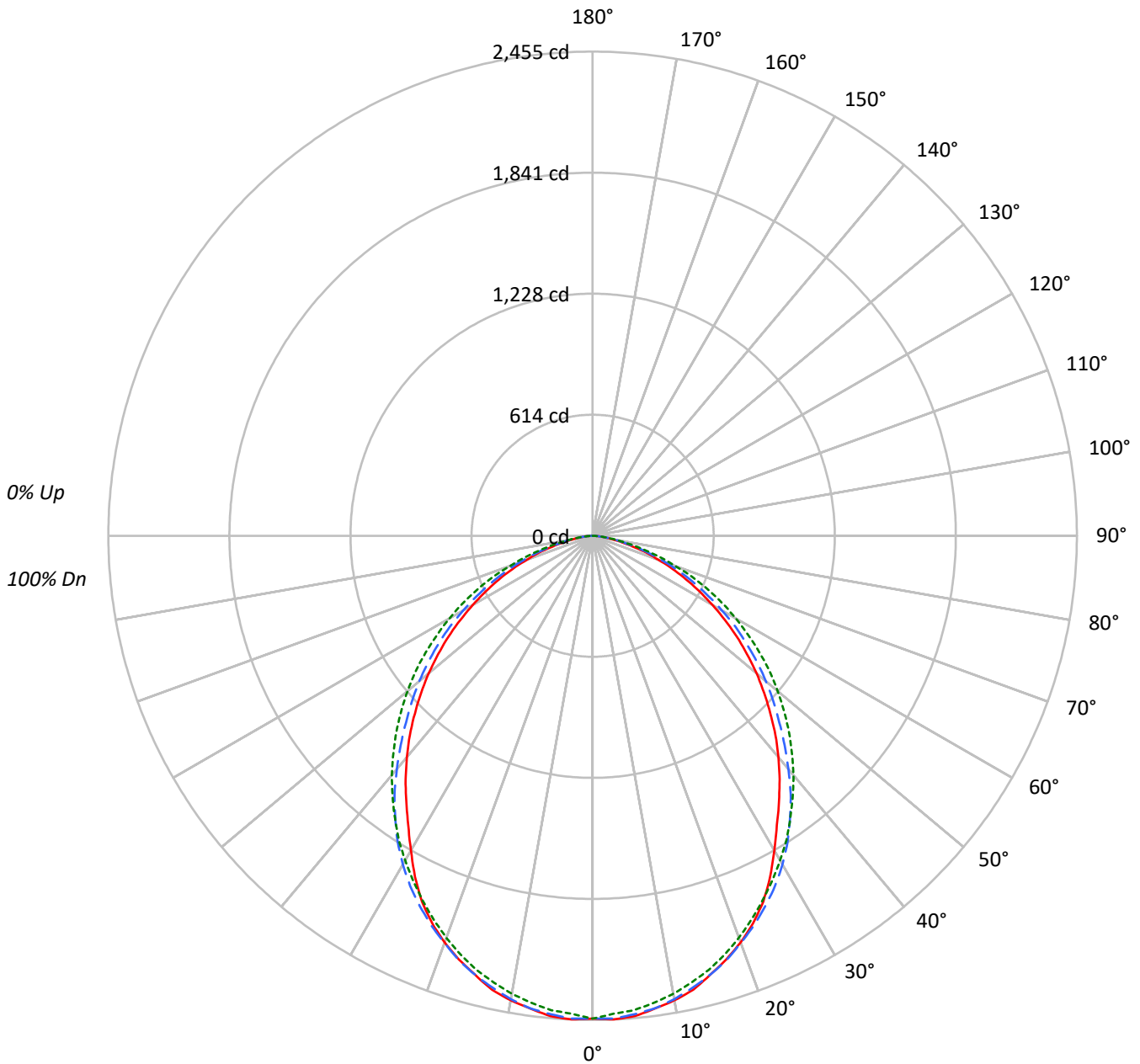
Lumens per Lamp: N/A
Luminaire Lumens: 5661.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6588	6588	6588
5°	6606	6578	6522
10°	6536	6518	6443
15°	6420	6420	6346
20°	6284	6292	6211
25°	6077	6152	6054
30°	5722	5980	5906
35°	5407	5731	5741
40°	5144	5422	5564
45°	4850	5093	5355
50°	4540	4800	5127
55°	4188	4465	4850
60°	3771	4075	4510
65°	3330	3623	4103
70°	2775	3086	3485
75°	2180	2464	2728
80°	1559	1734	1925
85°	1016	1016	957



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.5	4.1
10°-20°	647.6	11.4
20°-30°	946.3	16.7
30°-40°	1074.2	19.0
40°-50°	1036.9	18.3
50°-60°	855.4	15.1
60°-70°	569.6	10.1
70°-80°	254.9	4.5
80°-90°	45.6	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°	1824.4	32.2
0°-40°	2898.5	51.2
0°-60°	4790.9	84.6
0°-90°	5661.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5661.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2448	2448	2448	2448	2448	
5°	2445	2444	2435	2422	2414	231
15°	2304	2310	2304	2294	2278	650
25°	2047	2063	2072	2057	2039	937
35°	1646	1668	1745	1754	1748	1031
45°	1274	1296	1338	1400	1407	983
55°	893	908	952	1004	1034	797
65°	523	537	569	610	644	519
75°	210	221	237	248	262	229
85°	33	33	33	31	31	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2448.2	2448.2	2448.2	2448.2	2448.2
2.5°	2454.8	2455.8	2450.1	2435.1	2425.7
5°	2445.4	2444.5	2435.1	2421.9	2414.4
7.5°	2418.1	2420.0	2417.2	2398.4	2388.0
10°	2391.8	2392.7	2385.2	2370.2	2357.9
12.5°	2357.9	2357.0	2346.7	2339.1	2319.4
15°	2304.3	2310.0	2304.3	2294.0	2278.0
17.5°	2252.6	2252.6	2256.4	2238.5	2226.3
20°	2194.3	2197.1	2197.1	2183.0	2168.9
22.5°	2126.6	2135.0	2137.9	2122.8	2105.9
25°	2046.6	2062.6	2072.0	2057.0	2039.1
27.5°	1949.7	1974.2	2002.4	1991.1	1971.4
30°	1841.6	1877.3	1924.4	1914.9	1900.8
32.5°	1739.1	1774.8	1839.7	1835.9	1828.4
35°	1646.0	1668.5	1744.7	1754.1	1747.5
37.5°	1557.5	1578.2	1649.7	1671.3	1665.7
40°	1464.4	1487.0	1543.4	1582.0	1583.9
42.5°	1372.3	1393.9	1440.0	1495.5	1495.5
45°	1274.4	1296.1	1338.4	1399.5	1407.1
47.5°	1178.5	1201.1	1242.5	1303.6	1315.8
50°	1084.4	1105.1	1146.5	1205.8	1224.6
52.5°	986.6	1009.2	1049.6	1104.2	1131.5
55°	892.6	907.6	951.8	1004.5	1033.7
57.5°	794.8	808.9	858.7	903.9	934.0
60°	700.7	718.6	757.1	803.2	838.0
62.5°	610.4	629.2	662.1	702.6	742.1
65°	522.9	537.1	569.0	609.5	644.3
67.5°	438.3	450.5	482.5	510.7	547.4
70°	352.7	368.7	392.2	419.5	443.0
72.5°	284.0	290.6	310.4	330.1	354.6
75°	209.7	221.0	237.0	248.3	262.4
77.5°	150.5	157.1	166.5	175.9	189.0
80°	100.6	103.5	111.9	113.8	124.2
82.5°	61.1	63.0	64.9	65.8	69.6
85°	32.9	32.9	32.9	31.0	31.0
87.5°	18.8	18.8	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)