

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: P558119

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-87-EDD**

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: P558119
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-LD4-3LO-40-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

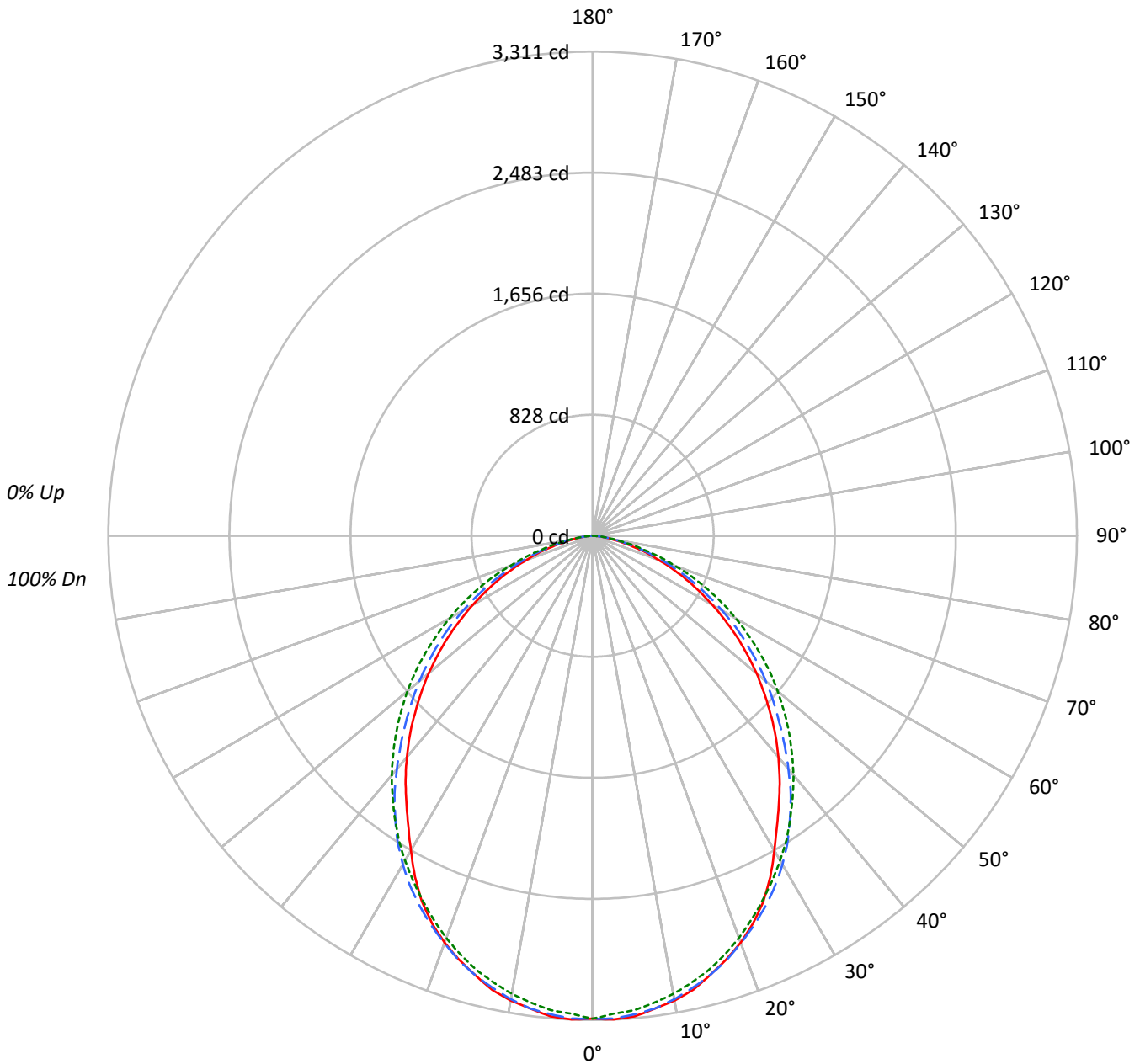
Lumens per Lamp: N/A
Luminaire Lumens: 7636.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	8887	8887	8887
5°	8910	8873	8797
10°	8816	8792	8691
15°	8659	8659	8560
20°	8476	8487	8378
25°	8197	8299	8167
30°	7719	8066	7967
35°	7294	7731	7744
40°	6939	7313	7505
45°	6542	6870	7223
50°	6124	6474	6915
55°	5649	6024	6541
60°	5087	5497	6084
65°	4492	4888	5533
70°	3744	4162	4701
75°	2941	3324	3681
80°	2103	2340	2596
85°	1371	1371	1294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.9	4.1
10°-20°	873.5	11.4
20°-30°	1276.4	16.7
30°-40°	1448.9	19.0
40°-50°	1398.7	18.3
50°-60°	1153.8	15.1
60°-70°	768.4	10.1
70°-80°	343.8	4.5
80°-90°	61.5	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°	2460.9	32.2
0°-40°	3909.8	51.2
0°-60°	6462.3	84.6
0°-90°	7636.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7636.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3302	3302	3302	3302	3302	
5°	3299	3297	3285	3267	3257	312
15°	3108	3116	3108	3094	3073	876
25°	2761	2782	2795	2775	2750	1264
35°	2220	2251	2353	2366	2357	1391
45°	1719	1748	1805	1888	1898	1326
55°	1204	1224	1284	1355	1394	1075
65°	705	724	768	822	869	699
75°	283	298	320	335	354	309
85°	44	44	44	42	42	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3302.4	3302.4	3302.4	3302.4	3302.4
2.5°	3311.3	3312.5	3304.9	3284.6	3271.9
5°	3298.6	3297.3	3284.6	3266.8	3256.7
7.5°	3261.8	3264.3	3260.5	3235.1	3221.2
10°	3226.3	3227.5	3217.4	3197.1	3180.6
12.5°	3180.6	3179.3	3165.4	3155.2	3128.6
15°	3108.3	3115.9	3108.3	3094.3	3072.7
17.5°	3038.5	3038.5	3043.6	3019.5	3003.0
20°	2959.8	2963.6	2963.6	2944.6	2925.6
22.5°	2868.5	2879.9	2883.7	2863.4	2840.6
25°	2760.6	2782.2	2794.9	2774.6	2750.5
27.5°	2630.0	2663.0	2701.0	2685.8	2659.2
30°	2484.1	2532.3	2595.7	2583.0	2564.0
32.5°	2345.8	2394.0	2481.5	2476.5	2466.3
35°	2220.2	2250.6	2353.4	2366.1	2357.2
37.5°	2100.9	2128.8	2225.3	2254.4	2246.8
40°	1975.3	2005.8	2081.9	2133.9	2136.5
42.5°	1851.0	1880.2	1942.3	2017.2	2017.2
45°	1719.1	1748.2	1805.3	1887.8	1897.9
47.5°	1589.7	1620.1	1675.9	1758.4	1774.9
50°	1462.8	1490.7	1546.5	1626.4	1651.8
52.5°	1330.8	1361.3	1415.8	1489.4	1526.2
55°	1204.0	1224.3	1283.9	1354.9	1394.3
57.5°	1072.0	1091.1	1158.3	1219.2	1259.8
60°	945.2	969.3	1021.3	1083.5	1130.4
62.5°	823.4	848.7	893.2	947.7	1001.0
65°	705.4	724.4	767.6	822.1	869.0
67.5°	591.2	607.7	650.8	688.9	738.4
70°	475.8	497.3	529.0	565.8	597.5
72.5°	383.1	392.0	418.7	445.3	478.3
75°	282.9	298.1	319.7	334.9	354.0
77.5°	203.0	211.9	224.6	237.2	255.0
80°	135.7	139.6	151.0	153.5	167.5
82.5°	82.5	85.0	87.5	88.8	93.9
85°	44.4	44.4	44.4	41.9	41.9
87.5°	25.4	25.4	21.6	17.8	12.7
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)