

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: P558358

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-87-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: P558358
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-LD4-3STD-40-UNV-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

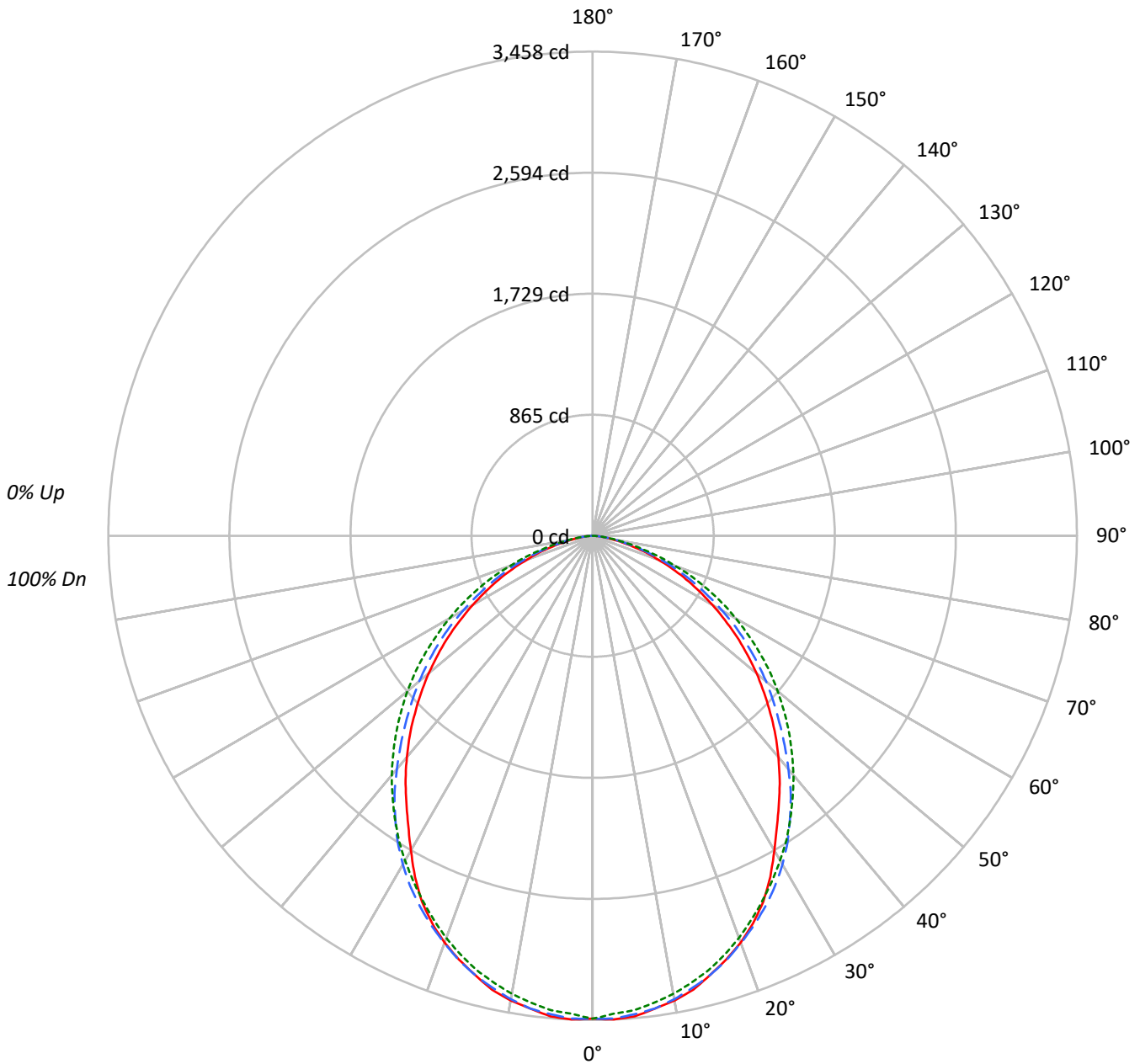
Lumens per Lamp: N/A
Luminaire Lumens: 7975.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (Ain): 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°	9281	9281	9281
5°	9306	9266	9188
10°	9207	9182	9077
15°	9044	9044	8941
20°	8852	8864	8750
25°	8561	8667	8529
30°	8062	8424	8321
35°	7617	8074	8088
40°	7247	7638	7838
45°	6833	7175	7543
50°	6396	6762	7222
55°	5899	6291	6832
60°	5313	5740	6354
65°	4691	5104	5779
70°	3910	4347	4910
75°	3072	3472	3844
80°	2197	2444	2710
85°	1433	1433	1349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	324.7	4.1
10°-20°	912.3	11.4
20°-30°	1333.1	16.7
30°-40°	1513.2	19.0
40°-50°	1460.8	18.3
50°-60°	1205.1	15.1
60°-70°	802.5	10.1
70°-80°	359.1	4.5
80°-90°	64.3	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°	2570.1	32.2
0°-40°	4083.4	51.2
0°-60°	6749.2	84.6
0°-90°	7975.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7975.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3449	3449	3449	3449	3449	
5°	3445	3444	3430	3412	3401	326
15°	3246	3254	3246	3232	3209	915
25°	2883	2906	2919	2898	2873	1320
35°	2319	2351	2458	2471	2462	1453
45°	1795	1826	1886	1972	1982	1385
55°	1257	1279	1341	1415	1456	1122
65°	737	757	802	859	908	730
75°	296	311	334	350	370	323
85°	46	46	46	44	44	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3449.0	3449.0	3449.0	3449.0	3449.0
2.5°	3458.3	3459.6	3451.6	3430.4	3417.2
5°	3445.0	3443.7	3430.4	3411.9	3401.3
7.5°	3406.6	3409.2	3405.3	3378.8	3364.2
10°	3369.5	3370.8	3360.2	3339.0	3321.8
12.5°	3321.8	3320.5	3305.9	3295.3	3267.5
15°	3246.3	3254.2	3246.3	3231.7	3209.2
17.5°	3173.4	3173.4	3178.7	3153.5	3136.3
20°	3091.2	3095.2	3095.2	3075.3	3055.5
22.5°	2995.8	3007.8	3011.7	2990.5	2966.7
25°	2883.2	2905.7	2919.0	2897.8	2872.6
27.5°	2746.7	2781.2	2820.9	2805.0	2777.2
30°	2594.4	2644.7	2711.0	2697.7	2677.8
32.5°	2449.9	2500.3	2591.7	2586.4	2575.8
35°	2318.8	2350.6	2457.9	2471.1	2461.9
37.5°	2194.2	2223.4	2324.1	2354.5	2346.6
40°	2063.0	2094.8	2174.3	2228.7	2231.3
42.5°	1933.2	1963.7	2028.6	2106.8	2106.8
45°	1795.4	1825.9	1885.5	1971.6	1982.2
47.5°	1660.2	1692.0	1750.3	1836.5	1853.7
50°	1527.7	1556.9	1615.2	1698.7	1725.2
52.5°	1389.9	1421.7	1478.7	1555.6	1594.0
55°	1257.4	1278.6	1340.9	1415.1	1456.2
57.5°	1119.6	1139.5	1209.7	1273.3	1315.7
60°	987.1	1012.3	1066.6	1131.6	1180.6
62.5°	859.9	886.4	932.8	989.8	1045.4
65°	736.7	756.6	801.6	858.6	907.6
67.5°	617.5	634.7	679.7	719.5	771.2
70°	496.9	519.4	552.5	591.0	624.1
72.5°	400.2	409.4	437.3	465.1	499.5
75°	295.5	311.4	333.9	349.8	369.7
77.5°	212.0	221.3	234.5	247.8	266.3
80°	141.8	145.8	157.7	160.3	174.9
82.5°	86.1	88.8	91.4	92.8	98.1
85°	46.4	46.4	46.4	43.7	43.7
87.5°	26.5	26.5	22.5	18.6	13.3
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)