

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: P558352

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-84-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: P558352
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-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

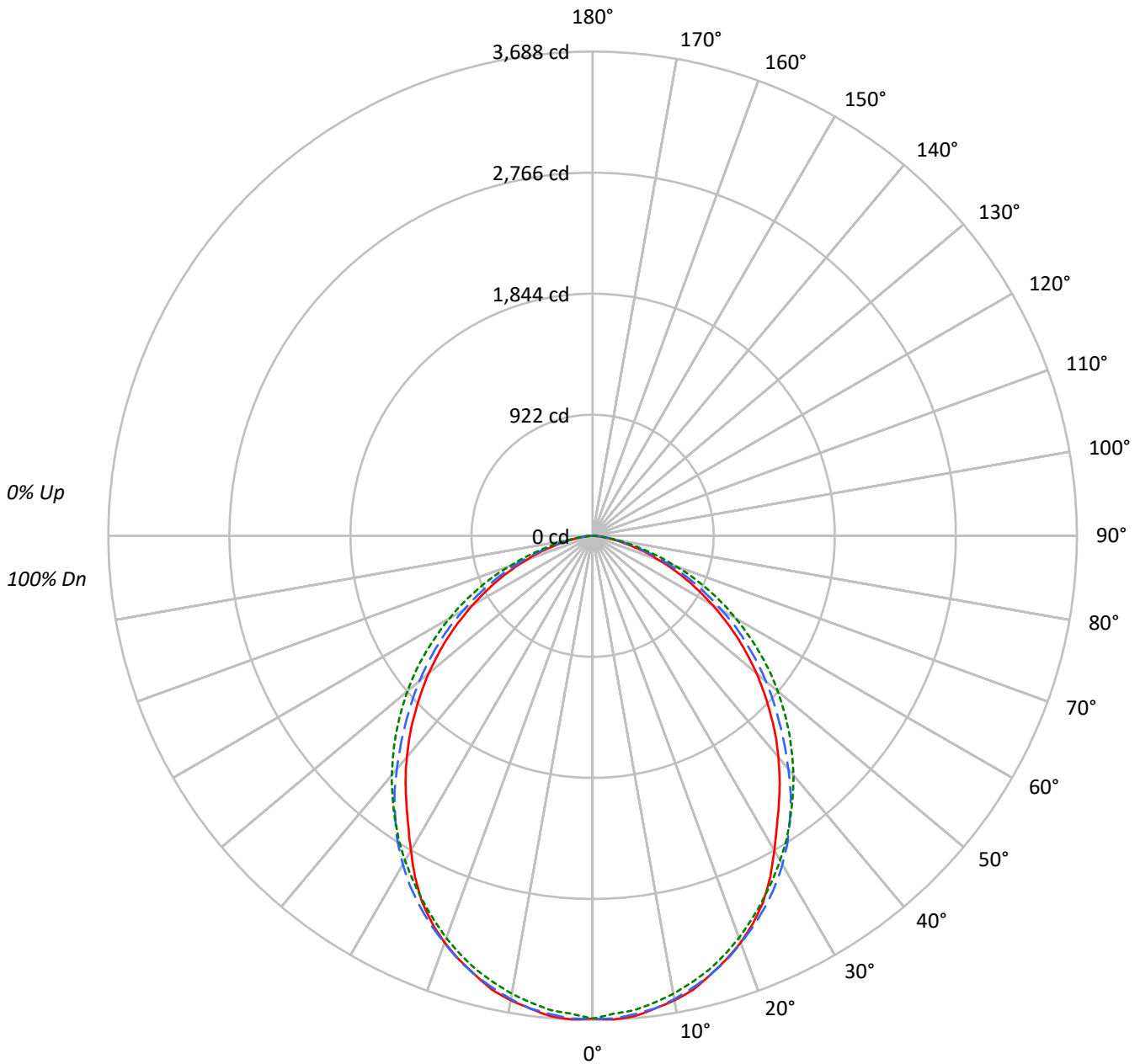
Lumens per Lamp: N/A
Luminaire Lumens: 8505.0 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9898	9898	9898
5°	9924	9882	9798
10°	9819	9792	9680
15°	9645	9645	9534
20°	9441	9453	9331
25°	9130	9243	9096
30°	8597	8983	8874
35°	8124	8611	8625
40°	7729	8146	8359
45°	7287	7652	8045
50°	6821	7211	7702
55°	6291	6709	7286
60°	5666	6122	6776
65°	5003	5443	6163
70°	4169	4636	5237
75°	3276	3702	4099
80°	2343	2607	2890
85°	1528	1528	1439



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.3	4.1
10°-20°	972.9	11.4
20°-30°	1421.7	16.7
30°-40°	1613.8	19.0
40°-50°	1557.9	18.3
50°-60°	1285.1	15.1
60°-70°	855.8	10.1
70°-80°	382.9	4.5
80°-90°	68.5	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°	2740.9	32.2
0°-40°	4354.7	51.2
0°-60°	7197.7	84.6
0°-90°	8505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3678	3678	3678	3678	3678	
5°	3674	3672	3658	3639	3627	348
15°	3462	3470	3462	3446	3422	976
25°	3075	3099	3113	3090	3064	1408
35°	2473	2507	2621	2635	2626	1549
45°	1915	1947	2011	2103	2114	1477
55°	1341	1364	1430	1509	1553	1197
65°	786	807	855	916	968	779
75°	315	332	356	373	394	345
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3678.2	3678.2	3678.2	3678.2	3678.2
2.5°	3688.1	3689.5	3681.0	3658.4	3644.3
5°	3674.0	3672.5	3658.4	3638.6	3627.3
7.5°	3633.0	3635.8	3631.6	3603.3	3587.8
10°	3593.4	3594.8	3583.5	3560.9	3542.5
12.5°	3542.5	3541.1	3525.6	3514.3	3484.6
15°	3462.0	3470.5	3462.0	3446.5	3422.4
17.5°	3384.3	3384.3	3389.9	3363.1	3344.7
20°	3296.7	3300.9	3300.9	3279.7	3258.5
22.5°	3194.9	3207.6	3211.9	3189.3	3163.8
25°	3074.8	3098.8	3113.0	3090.4	3063.5
27.5°	2929.3	2966.0	3008.4	2991.4	2961.8
30°	2766.8	2820.5	2891.1	2877.0	2855.8
32.5°	2612.7	2666.4	2763.9	2758.3	2747.0
35°	2472.9	2506.8	2621.2	2635.4	2625.5
37.5°	2340.0	2371.1	2478.5	2511.0	2502.5
40°	2200.1	2234.0	2318.8	2376.8	2379.6
42.5°	2061.7	2094.2	2163.4	2246.8	2246.8
45°	1914.7	1947.2	2010.8	2102.6	2113.9
47.5°	1770.6	1804.5	1866.7	1958.5	1976.9
50°	1629.3	1660.3	1722.5	1811.5	1839.8
52.5°	1482.3	1516.2	1577.0	1658.9	1699.9
55°	1341.0	1363.6	1430.0	1509.1	1553.0
57.5°	1194.0	1215.2	1290.1	1357.9	1403.2
60°	1052.7	1079.6	1137.5	1206.8	1259.0
62.5°	917.1	945.3	994.8	1055.6	1114.9
65°	785.7	806.9	854.9	915.7	967.9
67.5°	658.5	676.9	724.9	767.3	822.4
70°	529.9	553.9	589.2	630.2	665.6
72.5°	426.7	436.6	466.3	496.0	532.7
75°	315.1	332.1	356.1	373.0	394.2
77.5°	226.1	236.0	250.1	264.2	284.0
80°	151.2	155.4	168.2	171.0	186.5
82.5°	91.8	94.7	97.5	98.9	104.6
85°	49.5	49.5	49.5	46.6	46.6
87.5°	28.3	28.3	24.0	19.8	14.1
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)