

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: P558326

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-80-87-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: P558326
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-80-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

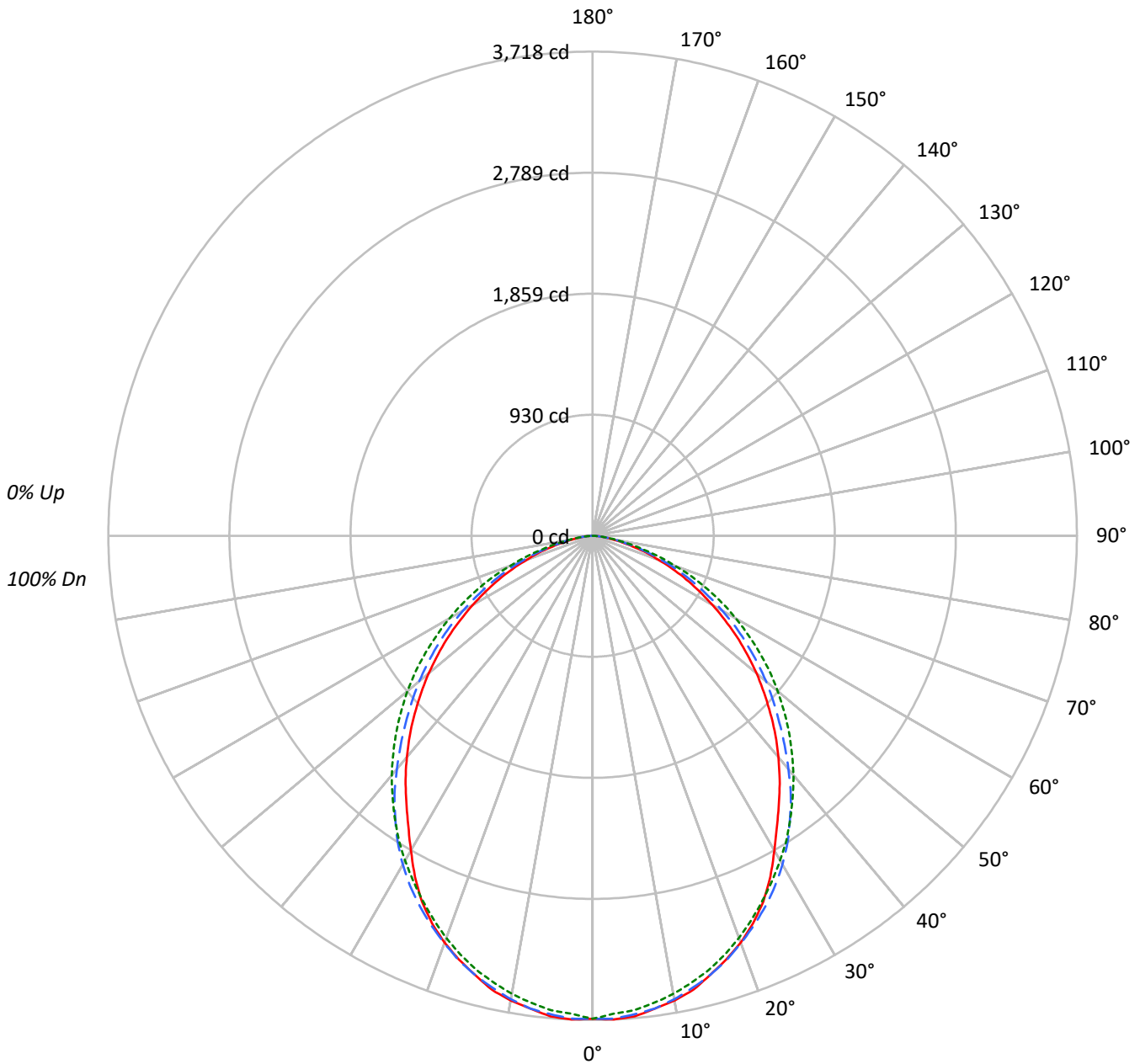
Lumens per Lamp: N/A
Luminaire Lumens: 8575.0 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9979	9979	9979
5°	10006	9964	9879
10°	9900	9872	9760
15°	9724	9724	9613
20°	9518	9531	9408
25°	9205	9319	9171
30°	8668	9057	8947
35°	8190	8682	8696
40°	7792	8213	8428
45°	7347	7715	8111
50°	6877	7271	7765
55°	6343	6764	7346
60°	5712	6173	6832
65°	5044	5488	6214
70°	4204	4674	5279
75°	3303	3733	4133
80°	2362	2627	2915
85°	1541	1541	1451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	349.2	4.1
10°-20°	980.9	11.4
20°-30°	1433.4	16.7
30°-40°	1627.1	19.0
40°-50°	1570.7	18.3
50°-60°	1295.7	15.1
60°-70°	862.8	10.1
70°-80°	386.1	4.5
80°-90°	69.1	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°	2763.5	32.2
0°-40°	4390.6	51.2
0°-60°	7257.0	84.6
0°-90°	8575.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8575.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3708	3708	3708	3708	3708	
5°	3704	3703	3688	3669	3657	351
15°	3490	3499	3490	3475	3451	984
25°	3100	3124	3139	3116	3089	1420
35°	2493	2527	2643	2657	2647	1562
45°	1930	1963	2027	2120	2131	1489
55°	1352	1375	1442	1522	1566	1207
65°	792	814	862	923	976	785
75°	318	335	359	376	398	347
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°	3708.5	3708.5	3708.5	3708.5	3708.5
2.5°	3718.4	3719.9	3711.3	3688.5	3674.3
5°	3704.2	3702.8	3688.5	3668.6	3657.2
7.5°	3662.9	3665.7	3661.5	3633.0	3617.3
10°	3623.0	3624.4	3613.0	3590.2	3571.7
12.5°	3571.7	3570.3	3554.6	3543.2	3513.3
15°	3490.5	3499.0	3490.5	3474.8	3450.6
17.5°	3412.1	3412.1	3417.8	3390.8	3372.2
20°	3323.8	3328.1	3328.1	3306.7	3285.3
22.5°	3221.2	3234.0	3238.3	3215.5	3189.9
25°	3100.1	3124.3	3138.6	3115.8	3088.7
27.5°	2953.4	2990.4	3033.2	3016.1	2986.1
30°	2789.5	2843.7	2914.9	2900.7	2879.3
32.5°	2634.3	2688.4	2786.7	2781.0	2769.6
35°	2493.2	2527.4	2642.8	2657.0	2647.1
37.5°	2359.3	2390.6	2498.9	2531.7	2523.1
40°	2218.2	2252.4	2337.9	2396.3	2399.2
42.5°	2078.6	2111.4	2181.2	2265.3	2265.3
45°	1930.5	1963.2	2027.3	2119.9	2131.3
47.5°	1785.1	1819.3	1882.0	1974.6	1993.1
50°	1642.7	1674.0	1736.7	1826.5	1854.9
52.5°	1494.5	1528.7	1590.0	1672.6	1713.9
55°	1352.0	1374.8	1441.8	1521.6	1565.7
57.5°	1203.9	1225.2	1300.7	1369.1	1414.7
60°	1061.4	1088.5	1146.9	1216.7	1269.4
62.5°	924.6	953.1	1003.0	1064.2	1124.1
65°	792.1	813.5	861.9	923.2	975.9
67.5°	663.9	682.4	730.9	773.6	829.2
70°	534.3	558.5	594.1	635.4	671.0
72.5°	430.3	440.2	470.1	500.1	537.1
75°	317.7	334.8	359.0	376.1	397.5
77.5°	228.0	237.9	252.2	266.4	286.4
80°	152.4	156.7	169.5	172.4	188.1
82.5°	92.6	95.5	98.3	99.7	105.4
85°	49.9	49.9	49.9	47.0	47.0
87.5°	28.5	28.5	24.2	19.9	14.2
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)