

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: P558320

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-80-84-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: P558320
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-80-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

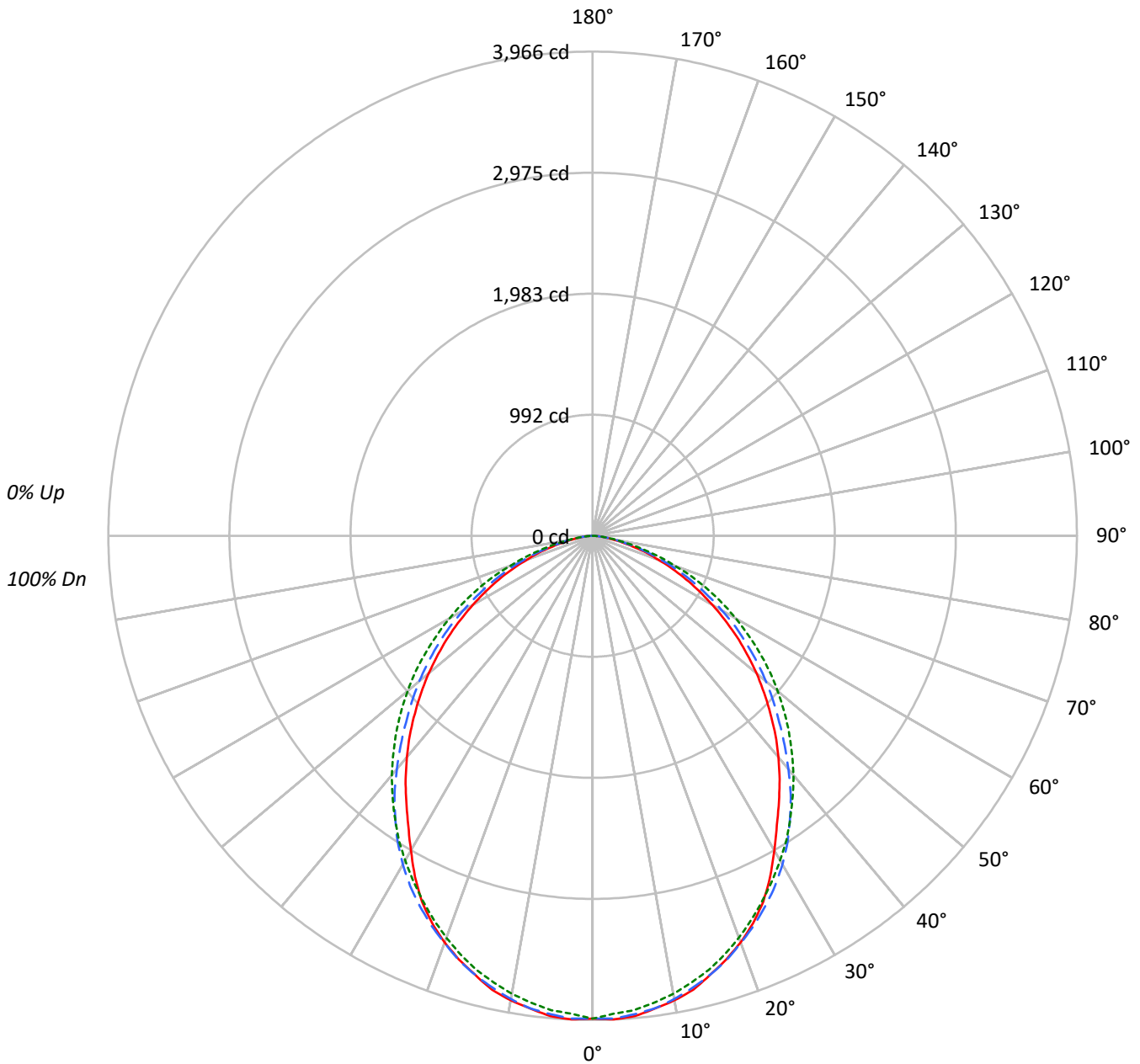
Lumens per Lamp: N/A
Luminaire Lumens: 9145.0 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	10643	10643	10643
5°	10671	10626	10536
10°	10558	10529	10408
15°	10371	10371	10252
20°	10151	10164	10033
25°	9817	9938	9780
30°	9244	9660	9542
35°	8735	9259	9274
40°	8310	8759	8988
45°	7835	8228	8650
50°	7334	7754	8282
55°	6765	7214	7834
60°	6092	6583	7286
65°	5379	5853	6627
70°	4483	4985	5630
75°	3523	3981	4407
80°	2520	2802	3109
85°	1643	1643	1547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.4	4.1
10°-20°	1046.1	11.4
20°-30°	1528.7	16.7
30°-40°	1735.2	19.0
40°-50°	1675.1	18.3
50°-60°	1381.8	15.1
60°-70°	920.2	10.1
70°-80°	411.8	4.5
80°-90°	73.7	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°	2947.2	32.2
0°-40°	4682.4	51.2
0°-60°	7739.4	84.6
0°-90°	9145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9145.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3955	3955	3955	3955	3955	
5°	3950	3949	3934	3912	3900	374
15°	3722	3732	3722	3706	3680	1049
25°	3306	3332	3347	3323	3294	1514
35°	2659	2695	2818	2834	2823	1666
45°	2059	2094	2162	2261	2273	1588
55°	1442	1466	1538	1623	1670	1287
65°	845	868	919	985	1041	838
75°	339	357	383	401	424	371
85°	53	53	53	50	50	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3955.0	3955.0	3955.0	3955.0	3955.0
2.5°	3965.6	3967.1	3958.0	3933.7	3918.5
5°	3950.4	3948.9	3933.7	3912.4	3900.3
7.5°	3906.4	3909.4	3904.8	3874.4	3857.7
10°	3863.8	3865.3	3853.2	3828.9	3809.1
12.5°	3809.1	3807.6	3790.9	3778.7	3746.8
15°	3722.5	3731.6	3722.5	3705.8	3680.0
17.5°	3638.9	3638.9	3645.0	3616.2	3596.4
20°	3544.7	3549.3	3549.3	3526.5	3503.7
22.5°	3435.3	3449.0	3453.6	3429.3	3401.9
25°	3306.2	3332.0	3347.2	3322.9	3294.0
27.5°	3149.7	3189.2	3234.8	3216.6	3184.6
30°	2975.0	3032.7	3108.7	3093.5	3070.7
32.5°	2809.4	2867.1	2971.9	2965.9	2953.7
35°	2658.9	2695.4	2818.5	2833.7	2823.0
37.5°	2516.1	2549.5	2665.0	2700.0	2690.8
40°	2365.7	2402.2	2493.3	2555.6	2558.7
42.5°	2216.8	2251.7	2326.2	2415.8	2415.8
45°	2058.8	2093.7	2162.1	2260.9	2273.0
47.5°	1903.8	1940.3	2007.1	2105.9	2125.6
50°	1751.9	1785.3	1852.1	1947.9	1978.2
52.5°	1593.8	1630.3	1695.6	1783.8	1827.8
55°	1441.9	1466.2	1537.6	1622.7	1669.8
57.5°	1283.9	1306.7	1387.2	1460.1	1508.8
60°	1131.9	1160.8	1223.1	1297.6	1353.8
62.5°	986.1	1016.5	1069.7	1135.0	1198.8
65°	844.8	867.6	919.2	984.6	1040.8
67.5°	708.0	727.8	779.4	825.0	884.3
70°	569.8	595.6	633.6	677.6	715.6
72.5°	458.9	469.5	501.4	533.3	572.8
75°	338.8	357.1	382.9	401.1	423.9
77.5°	243.1	253.7	268.9	284.1	305.4
80°	162.6	167.1	180.8	183.8	200.6
82.5°	98.8	101.8	104.8	106.4	112.4
85°	53.2	53.2	53.2	50.1	50.1
87.5°	30.4	30.4	25.8	21.3	15.2
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)