

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: P558330

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-80-94-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: P558330
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-80-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND
4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

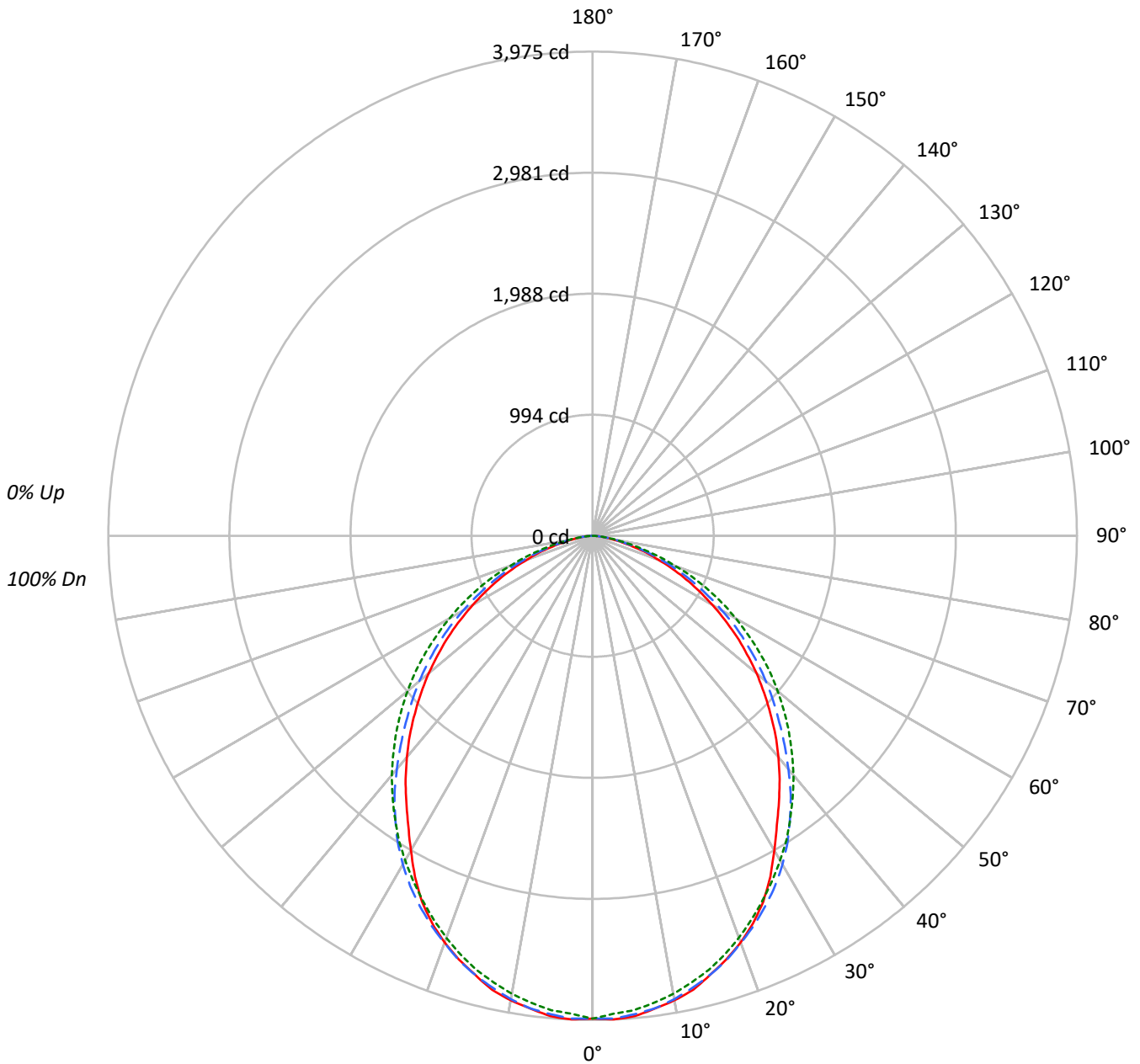
Lumens per Lamp: N/A
Luminaire Lumens: 9166.0 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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°	10667	10667	10667
5°	10696	10650	10560
10°	10582	10553	10432
15°	10394	10394	10276
20°	10174	10187	10057
25°	9839	9961	9803
30°	9265	9682	9563
35°	8755	9280	9295
40°	8329	8779	9009
45°	7853	8247	8670
50°	7351	7772	8301
55°	6780	7231	7852
60°	6106	6598	7303
65°	5391	5866	6642
70°	4493	4996	5644
75°	3531	3990	4418
80°	2524	2808	3115
85°	1646	1646	1553



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	373.2	4.1
10°-20°	1048.5	11.4
20°-30°	1532.2	16.7
30°-40°	1739.2	19.0
40°-50°	1678.9	18.3
50°-60°	1385.0	15.1
60°-70°	922.3	10.1
70°-80°	412.7	4.5
80°-90°	73.8	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°	2953.9	32.2
0°-40°	4693.2	51.2
0°-60°	7757.1	84.6
0°-90°	9166.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9166.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3964	3964	3964	3964	3964	
5°	3960	3958	3943	3921	3909	375
15°	3731	3740	3731	3714	3688	1052
25°	3314	3340	3355	3330	3302	1518
35°	2665	2702	2825	2840	2830	1670
45°	2064	2098	2167	2266	2278	1592
55°	1445	1470	1541	1626	1674	1290
65°	847	870	921	987	1043	840
75°	340	358	384	402	425	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°	3964.1	3964.1	3964.1	3964.1	3964.1
2.5°	3974.7	3976.2	3967.1	3942.7	3927.5
5°	3959.5	3958.0	3942.7	3921.4	3909.2
7.5°	3915.3	3918.4	3913.8	3883.3	3866.6
10°	3872.7	3874.2	3862.0	3837.7	3817.9
12.5°	3817.9	3816.3	3799.6	3787.4	3755.4
15°	3731.1	3740.2	3731.1	3714.3	3688.4
17.5°	3647.3	3647.3	3653.4	3624.5	3604.7
20°	3552.9	3557.4	3557.4	3534.6	3511.8
22.5°	3443.2	3456.9	3461.5	3437.1	3409.7
25°	3313.8	3339.7	3354.9	3330.5	3301.6
27.5°	3156.9	3196.5	3242.2	3223.9	3192.0
30°	2981.8	3039.7	3115.8	3100.6	3077.7
32.5°	2815.8	2873.7	2978.8	2972.7	2960.5
35°	2665.0	2701.6	2824.9	2840.2	2829.5
37.5°	2521.9	2555.4	2671.1	2706.2	2697.0
40°	2371.1	2407.7	2499.0	2561.5	2564.5
42.5°	2221.9	2256.9	2331.5	2421.4	2421.4
45°	2063.5	2098.5	2167.1	2266.0	2278.2
47.5°	1908.2	1944.7	2011.7	2110.7	2130.5
50°	1755.9	1789.4	1856.4	1952.3	1982.8
52.5°	1597.5	1634.1	1699.5	1787.9	1832.0
55°	1445.2	1469.6	1541.2	1626.4	1673.6
57.5°	1286.8	1309.7	1390.4	1463.5	1512.2
60°	1134.5	1163.5	1225.9	1300.5	1356.9
62.5°	988.3	1018.8	1072.1	1137.6	1201.6
65°	846.7	869.6	921.3	986.8	1043.2
67.5°	709.7	729.5	781.2	826.9	886.3
70°	571.1	597.0	635.0	679.2	717.3
72.5°	459.9	470.6	502.6	534.5	574.1
75°	339.6	357.9	383.8	402.0	424.9
77.5°	243.7	254.3	269.5	284.8	306.1
80°	162.9	167.5	181.2	184.3	201.0
82.5°	99.0	102.0	105.1	106.6	112.7
85°	53.3	53.3	53.3	50.3	50.3
87.5°	30.5	30.5	25.9	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)