

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: P557688

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-80-88-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: P557688
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-LD4-3HI-30-UNV-80-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

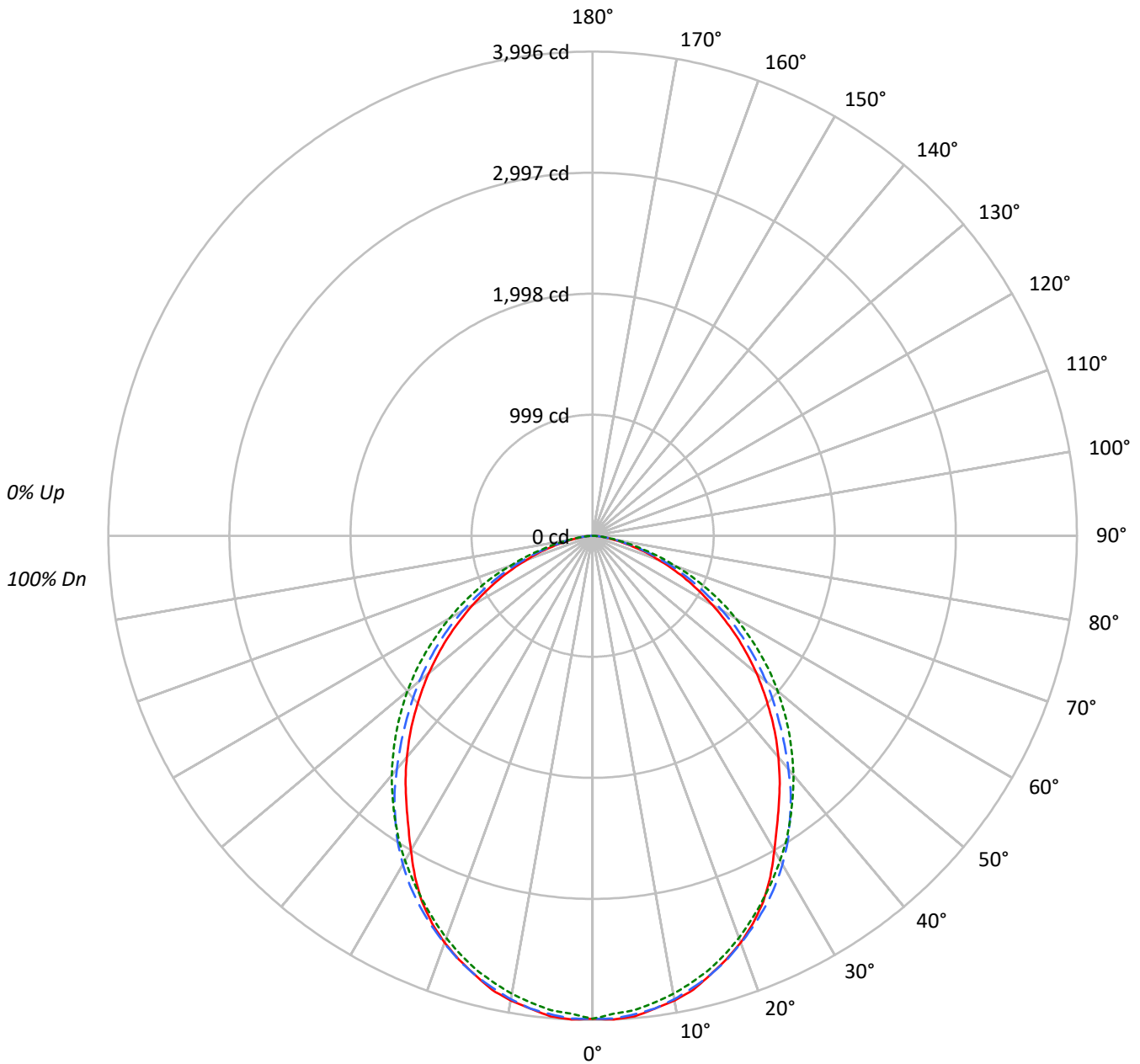
Lumens per Lamp: N/A
Luminaire Lumens: 9216.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	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°	10725	10725	10725
5°	10754	10708	10618
10°	10640	10611	10489
15°	10451	10451	10332
20°	10230	10243	10111
25°	9893	10016	9856
30°	9316	9734	9615
35°	8803	9331	9346
40°	8375	8827	9058
45°	7896	8292	8718
50°	7391	7814	8346
55°	6817	7270	7895
60°	6139	6634	7343
65°	5421	5899	6679
70°	4518	5024	5674
75°	3551	4012	4442
80°	2538	2824	3132
85°	1655	1655	1559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	375.3	4.1
10°-20°	1054.2	11.4
20°-30°	1540.6	16.7
30°-40°	1748.7	19.0
40°-50°	1688.1	18.3
50°-60°	1392.6	15.1
60°-70°	927.3	10.1
70°-80°	415.0	4.5
80°-90°	74.2	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°	2970.1	32.2
0°-40°	4718.8	51.2
0°-60°	7799.5	84.6
0°-90°	9216.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9216.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3986	3986	3986	3986	3986	
5°	3981	3980	3964	3943	3931	377
15°	3751	3761	3751	3735	3708	1058
25°	3332	3358	3373	3349	3320	1526
35°	2680	2716	2840	2856	2845	1679
45°	2075	2110	2179	2278	2291	1601
55°	1453	1478	1550	1635	1683	1297
65°	851	874	926	992	1049	844
75°	342	360	386	404	427	373
85°	54	54	54	50	50	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3985.7	3985.7	3985.7	3985.7	3985.7
2.5°	3996.4	3997.9	3988.7	3964.2	3948.9
5°	3981.1	3979.6	3964.2	3942.8	3930.6
7.5°	3936.7	3939.7	3935.2	3904.5	3887.7
10°	3893.8	3895.3	3883.1	3858.6	3838.7
12.5°	3838.7	3837.2	3820.3	3808.1	3775.9
15°	3751.4	3760.6	3751.4	3734.6	3708.5
17.5°	3667.2	3667.2	3673.3	3644.2	3624.3
20°	3572.3	3576.9	3576.9	3553.9	3530.9
22.5°	3462.0	3475.8	3480.4	3455.9	3428.3
25°	3331.9	3357.9	3373.2	3348.7	3319.6
27.5°	3174.2	3214.0	3259.9	3241.5	3209.4
30°	2998.1	3056.3	3132.8	3117.5	3094.5
32.5°	2831.2	2889.4	2995.0	2988.9	2976.6
35°	2679.6	2716.3	2840.4	2855.7	2844.9
37.5°	2535.6	2569.3	2685.7	2720.9	2711.7
40°	2384.1	2420.8	2512.7	2575.5	2578.5
42.5°	2234.0	2269.2	2344.2	2434.6	2434.6
45°	2074.8	2110.0	2178.9	2278.4	2290.7
47.5°	1918.6	1955.3	2022.7	2122.2	2142.1
50°	1765.5	1799.1	1866.5	1963.0	1993.6
52.5°	1606.2	1643.0	1708.8	1797.6	1842.0
55°	1453.1	1477.6	1549.6	1635.3	1682.8
57.5°	1293.9	1316.8	1398.0	1471.5	1520.5
60°	1140.7	1169.8	1232.6	1307.6	1364.3
62.5°	993.7	1024.4	1078.0	1143.8	1208.1
65°	851.3	874.3	926.4	992.2	1048.9
67.5°	713.5	733.4	785.5	831.4	891.2
70°	574.2	600.2	638.5	682.9	721.2
72.5°	462.4	473.1	505.3	537.4	577.3
75°	341.5	359.8	385.9	404.2	427.2
77.5°	245.0	255.7	271.0	286.3	307.8
80°	163.8	168.4	182.2	185.3	202.1
82.5°	99.5	102.6	105.7	107.2	113.3
85°	53.6	53.6	53.6	50.5	50.5
87.5°	30.6	30.6	26.0	21.4	15.3
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)