

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: P557814

Luminaire Tested: **FUSL-12-4-LD4-3HI-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: P557814
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-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

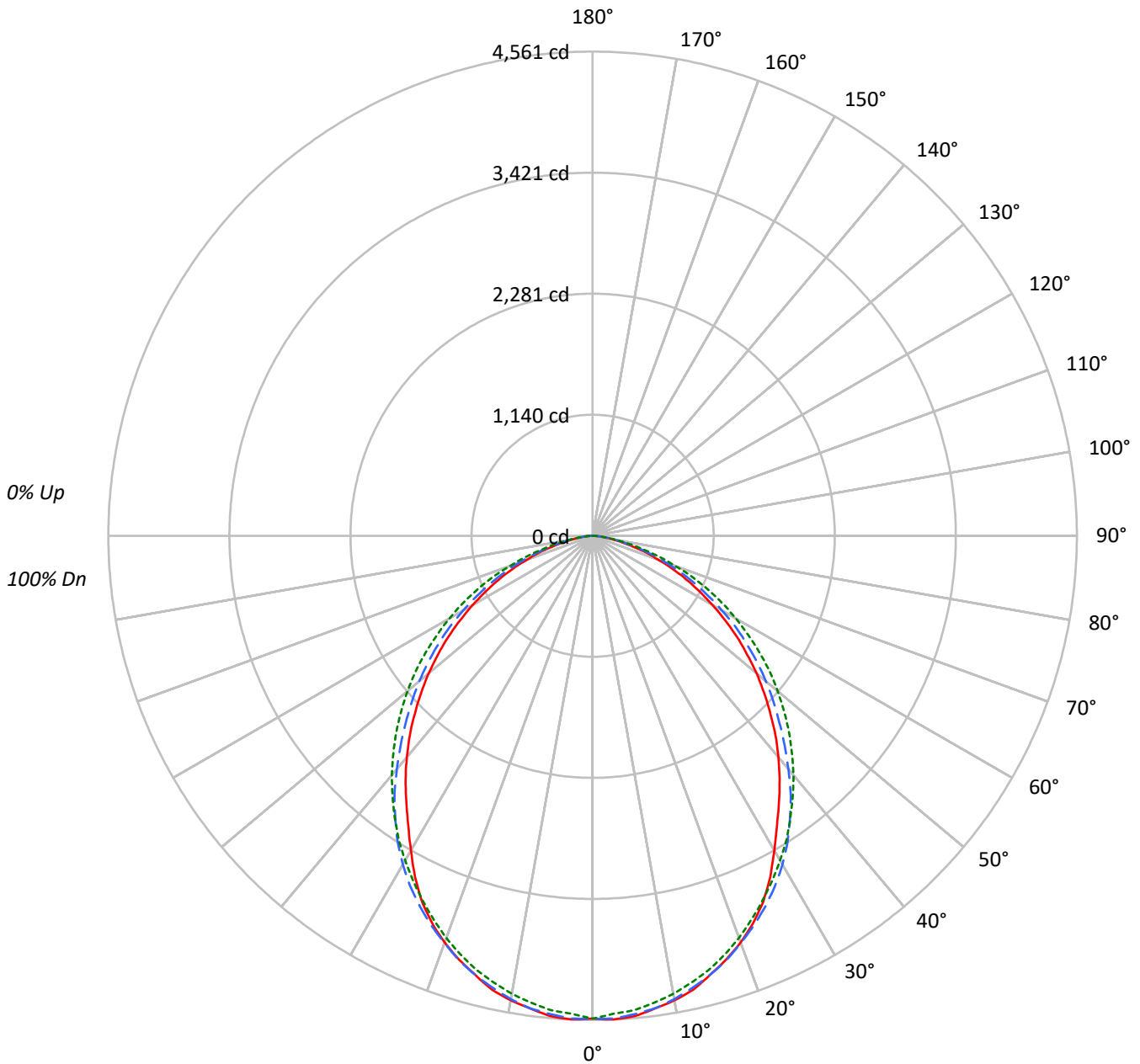
Lumens per Lamp: N/A
Luminaire Lumens: 10518.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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				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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			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°	12241	12241	12241
5°	12273	12221	12118
10°	12143	12110	11971
15°	11928	11928	11791
20°	11675	11690	11540
25°	11291	11431	11249
30°	10632	11110	10974
35°	10046	10649	10666
40°	9558	10074	10338
45°	9011	9463	9949
50°	8435	8918	9525
55°	7781	8297	9010
60°	7007	7571	8380
65°	6187	6732	7622
70°	5156	5733	6476
75°	4052	4579	5070
80°	2898	3223	3575
85°	1890	1890	1782



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.3	4.1
10°-20°	1203.2	11.4
20°-30°	1758.2	16.7
30°-40°	1995.8	19.0
40°-50°	1926.6	18.3
50°-60°	1589.3	15.1
60°-70°	1058.3	10.1
70°-80°	473.6	4.5
80°-90°	84.7	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°	3389.7	32.2
0°-40°	5385.4	51.2
0°-60°	8901.3	84.6
0°-90°	10518.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10518.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4549	4549	4549	4549	4549	
5°	4544	4542	4524	4500	4486	430
15°	4281	4292	4281	4262	4232	1207
25°	3803	3832	3850	3822	3789	1741
35°	3058	3100	3242	3259	3247	1916
45°	2368	2408	2487	2600	2614	1827
55°	1658	1686	1768	1866	1920	1480
65°	972	998	1057	1132	1197	963
75°	390	411	440	461	488	426
85°	61	61	61	58	58	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4548.8	4548.8	4548.8	4548.8	4548.8
2.5°	4561.0	4562.7	4552.3	4524.3	4506.8
5°	4543.5	4541.8	4524.3	4499.8	4485.9
7.5°	4492.8	4496.3	4491.1	4456.1	4436.9
10°	4443.9	4445.7	4431.7	4403.7	4381.0
12.5°	4381.0	4379.3	4360.0	4346.1	4309.4
15°	4281.4	4291.9	4281.4	4262.2	4232.5
17.5°	4185.3	4185.3	4192.3	4159.1	4136.4
20°	4076.9	4082.2	4082.2	4056.0	4029.8
22.5°	3951.1	3966.8	3972.1	3944.1	3912.7
25°	3802.6	3832.3	3849.8	3821.8	3788.6
27.5°	3622.6	3668.0	3720.4	3699.5	3662.8
30°	3421.6	3488.0	3575.4	3557.9	3531.7
32.5°	3231.1	3297.5	3418.1	3411.1	3397.2
35°	3058.1	3100.1	3241.6	3259.1	3246.9
37.5°	2893.9	2932.3	3065.1	3105.3	3094.8
40°	2720.9	2762.8	2867.7	2939.3	2942.8
42.5°	2549.6	2589.8	2675.4	2778.5	2778.5
45°	2367.9	2408.1	2486.7	2600.3	2614.3
47.5°	2189.6	2231.6	2308.5	2422.0	2444.8
50°	2014.9	2053.3	2130.2	2240.3	2275.3
52.5°	1833.1	1875.1	1950.2	2051.6	2102.3
55°	1658.4	1686.3	1768.5	1866.3	1920.5
57.5°	1476.6	1502.9	1595.5	1679.4	1735.3
60°	1301.9	1335.1	1406.7	1492.4	1557.0
62.5°	1134.1	1169.1	1230.2	1305.4	1378.8
65°	971.6	997.8	1057.2	1132.4	1197.0
67.5°	814.3	837.1	896.5	948.9	1017.0
70°	655.3	685.0	728.7	779.4	823.1
72.5°	527.7	540.0	576.7	613.4	658.8
75°	389.7	410.7	440.4	461.3	487.6
77.5°	279.6	291.8	309.3	326.8	351.2
80°	187.0	192.2	208.0	211.4	230.7
82.5°	113.6	117.1	120.6	122.3	129.3
85°	61.2	61.2	61.2	57.7	57.7
87.5°	35.0	35.0	29.7	24.5	17.5
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)