

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: P557880

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-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: P557880
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

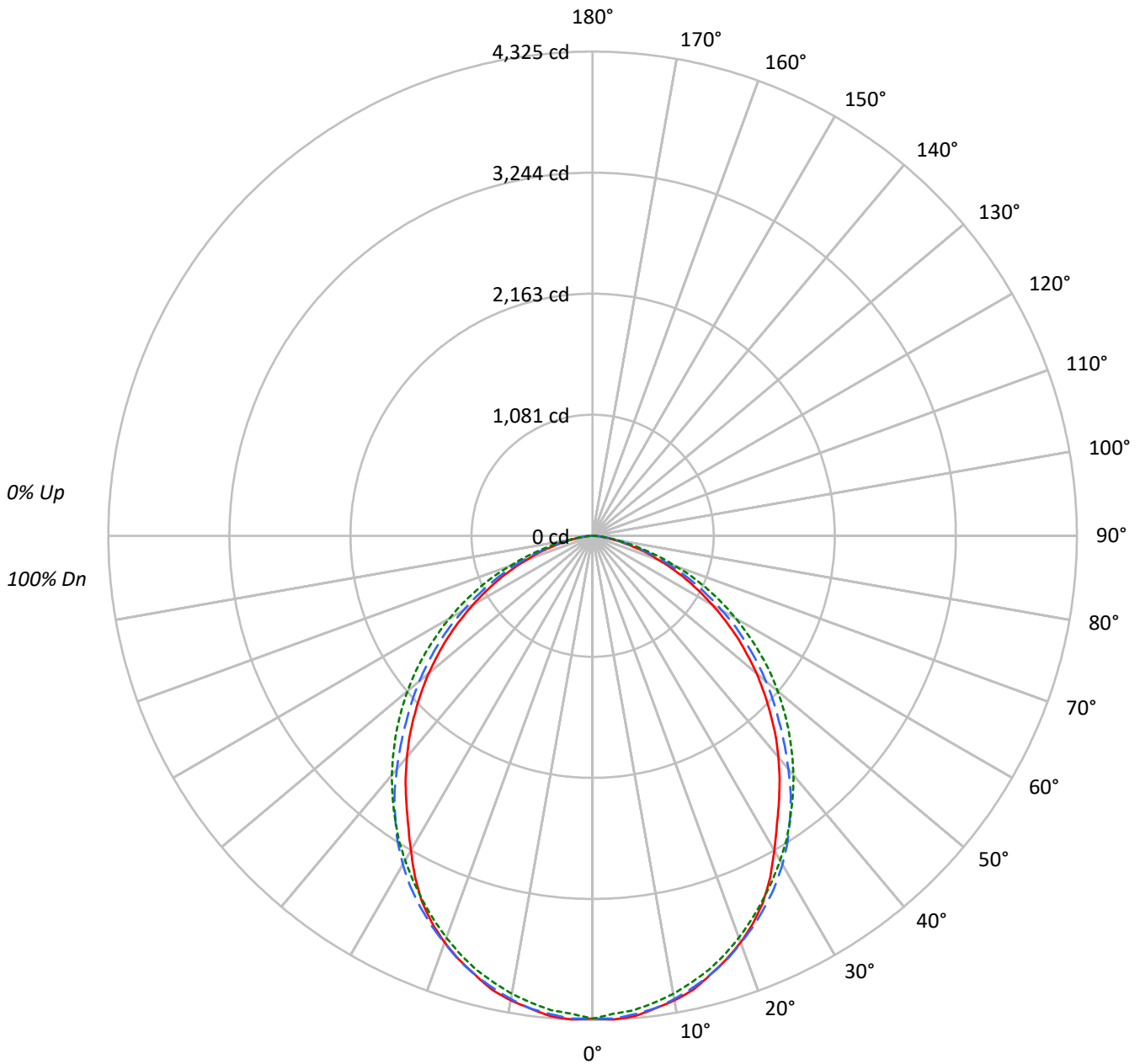
Lumens per Lamp: N/A
Luminaire Lumens: 9973.0 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557880

CATALOG NUMBER: FUSL-12-4-LD4-3HI-50-UNV-80-88-EDD-90

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	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	100	100	100	100		
	1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86	86	86	86	86		
	2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	73	73	73	73	73		
	3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63	63	63	63	63	63		
	4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54	54	54	54	54	54		
	5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47	47	47	47	47	47		
	6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42	42	42	42	42	42		
	7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37	37	37	37	37	37		
	8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34	34	34	34	34	34		
	9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30	30	30	30	30	30		
	10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28	28	28	28	28	28		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11606	11606	11606
5°	11637	11588	11490
10°	11514	11482	11351
15°	11310	11310	11180
20°	11070	11084	10942
25°	10705	10838	10666
30°	10081	10534	10405
35°	9526	10097	10113
40°	9063	9552	9802
45°	8544	8973	9433
50°	7998	8456	9032
55°	7378	7867	8543
60°	6643	7179	7946
65°	5866	6383	7227
70°	4889	5437	6140
75°	3842	4342	4807
80°	2748	3056	3389
85°	1791	1791	1689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.1	4.1
10°-20°	1140.8	11.4
20°-30°	1667.1	16.7
30°-40°	1892.3	19.0
40°-50°	1826.8	18.3
50°-60°	1507.0	15.1
60°-70°	1003.5	10.1
70°-80°	449.1	4.5
80°-90°	80.3	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°	3214.0	32.2
0°-40°	5106.4	51.2
0°-60°	8440.1	84.6
0°-90°	9973.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9973.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4313	4313	4313	4313	4313	
5°	4308	4306	4290	4267	4253	408
15°	4060	4070	4060	4041	4013	1144
25°	3606	3634	3650	3624	3592	1651
35°	2900	2939	3074	3090	3079	1817
45°	2245	2283	2358	2466	2479	1732
55°	1572	1599	1677	1770	1821	1403
65°	921	946	1002	1074	1135	913
75°	370	389	418	437	462	404
85°	58	58	58	55	55	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4313.1	<i>4313.1</i>	4313.1	4313.1	4313.1
2.5°	<i>4324.7</i>	<i>4326.3</i>	<i>4316.4</i>	<i>4289.9</i>	<i>4273.3</i>
5°	4308.1	<i>4306.4</i>	4289.9	4266.7	4253.4
7.5°	4260.0	<i>4263.4</i>	4258.4	4225.2	4207.0
10°	4213.6	<i>4215.3</i>	4202.0	4175.5	4154.0
12.5°	4154.0	<i>4152.3</i>	4134.1	4120.9	4086.1
15°	4059.6	<i>4069.5</i>	4059.6	4041.3	4013.2
17.5°	3968.4	<i>3968.4</i>	3975.0	3943.6	3922.0
20°	3865.7	<i>3870.7</i>	3870.7	3845.8	3820.9
22.5°	3746.4	<i>3761.3</i>	3766.3	3739.8	3709.9
25°	3605.5	<i>3633.7</i>	3650.3	3623.8	3592.3
27.5°	3434.9	<i>3478.0</i>	3527.7	3507.8	3473.0
30°	3244.3	<i>3307.3</i>	3390.1	3373.6	3348.7
32.5°	3063.7	<i>3126.7</i>	3241.0	3234.4	3221.1
35°	2899.7	<i>2939.4</i>	3073.7	3090.2	3078.6
37.5°	2743.9	<i>2780.4</i>	2906.3	2944.4	2934.5
40°	2579.9	<i>2619.7</i>	2719.1	2787.0	2790.3
42.5°	2417.5	<i>2455.6</i>	2536.8	2634.6	2634.6
45°	2245.2	<i>2283.3</i>	2357.9	2465.6	2478.8
47.5°	2076.2	<i>2115.9</i>	2188.8	2296.5	2318.1
50°	1910.5	<i>1946.9</i>	2019.8	2124.2	2157.4
52.5°	1738.2	<i>1777.9</i>	1849.2	1945.3	1993.3
55°	1572.5	<i>1599.0</i>	1676.8	1769.6	1821.0
57.5°	1400.1	<i>1425.0</i>	1512.8	1592.3	1645.4
60°	1234.4	<i>1265.9</i>	1333.9	1415.0	1476.4
62.5°	1075.4	<i>1108.5</i>	1166.5	1237.7	1307.3
65°	921.3	<i>946.1</i>	1002.5	1073.7	1135.0
67.5°	772.1	<i>793.7</i>	850.0	899.7	964.4
70°	621.4	<i>649.5</i>	691.0	739.0	780.4
72.5°	500.4	<i>512.0</i>	546.8	581.6	624.7
75°	369.5	<i>389.4</i>	417.6	437.4	462.3
77.5°	265.1	<i>276.7</i>	293.3	309.9	333.0
80°	177.3	<i>182.3</i>	197.2	200.5	218.7
82.5°	107.7	<i>111.0</i>	114.3	116.0	122.6
85°	58.0	<i>58.0</i>	58.0	54.7	54.7
87.5°	33.1	<i>33.1</i>	28.2	23.2	16.6
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)