

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: P556976

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-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: P556976
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-LD4-2HI-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

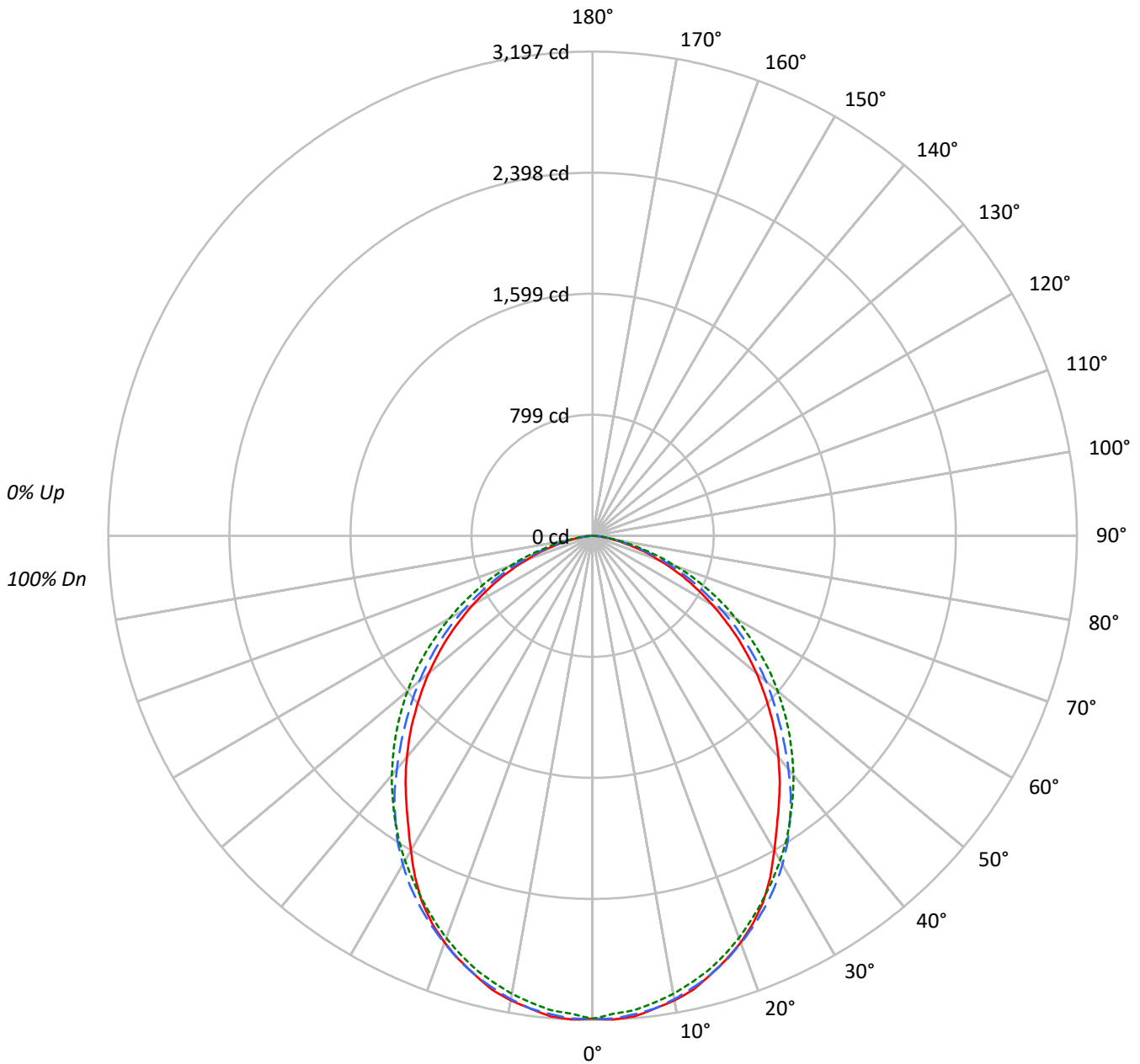
Lumens per Lamp: N/A
Luminaire Lumens: 7373.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8580	8580	8580
5°	8604	8567	8494
10°	8512	8489	8391
15°	8361	8361	8266
20°	8184	8195	8089
25°	7915	8013	7886
30°	7453	7788	7693
35°	7042	7465	7477
40°	6700	7061	7247
45°	6317	6634	6974
50°	5913	6252	6677
55°	5454	5816	6316
60°	4912	5307	5874
65°	4337	4719	5343
70°	3615	4019	4540
75°	2840	3210	3554
80°	2032	2259	2506
85°	1325	1325	1247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.2	4.1
10°-20°	843.4	11.4
20°-30°	1232.5	16.7
30°-40°	1399.0	19.0
40°-50°	1350.5	18.3
50°-60°	1114.1	15.1
60°-70°	741.9	10.1
70°-80°	332.0	4.5
80°-90°	59.4	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°	2376.1	32.2
0°-40°	3775.1	51.2
0°-60°	6239.7	84.6
0°-90°	7373.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7373.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3189	3189	3189	3189	3189	
5°	3185	3184	3172	3154	3144	301
15°	3001	3009	3001	2988	2967	846
25°	2666	2686	2699	2679	2656	1221
35°	2144	2173	2272	2285	2276	1343
45°	1660	1688	1743	1823	1833	1281
55°	1162	1182	1240	1308	1346	1038
65°	681	700	741	794	839	675
75°	273	288	309	323	342	299
85°	43	43	43	40	40	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3188.6	<i>3188.6</i>	3188.6	3188.6	3188.6
2.5°	<i>3197.2</i>	<i>3198.4</i>	<i>3191.1</i>	<i>3171.5</i>	<i>3159.2</i>
5°	3185.0	<i>3183.7</i>	3171.5	3154.3	3144.5
7.5°	3149.4	<i>3151.9</i>	3148.2	3123.7	3110.2
10°	3115.1	<i>3116.4</i>	3106.6	3087.0	3071.0
12.5°	3071.0	<i>3069.8</i>	3056.3	3046.5	3020.8
15°	3001.2	<i>3008.6</i>	3001.2	2987.7	2966.9
17.5°	2933.8	<i>2933.8</i>	2938.7	2915.5	2899.5
20°	2857.9	<i>2861.6</i>	2861.6	2843.2	2824.8
22.5°	2769.7	<i>2780.7</i>	2784.4	2764.8	2742.7
25°	2665.6	<i>2686.4</i>	2698.6	2679.0	2655.8
27.5°	2539.4	<i>2571.2</i>	2608.0	2593.3	2567.6
30°	2398.5	<i>2445.1</i>	2506.3	2494.1	2475.7
32.5°	2265.0	<i>2311.5</i>	2396.1	2391.2	2381.4
35°	2143.7	<i>2173.1</i>	2272.3	2284.6	2276.0
37.5°	2028.6	<i>2055.5</i>	2148.6	2176.8	2169.4
40°	1907.3	<i>1936.7</i>	2010.2	2060.4	2062.9
42.5°	1787.3	<i>1815.4</i>	1875.4	1947.7	1947.7
45°	1659.9	<i>1688.0</i>	1743.2	1822.8	1832.6
47.5°	1534.9	<i>1564.3</i>	1618.2	1697.8	1713.8
50°	1412.4	<i>1439.4</i>	1493.3	1570.4	1594.9
52.5°	1285.0	<i>1314.4</i>	1367.1	1438.1	1473.7
55°	1162.5	<i>1182.1</i>	1239.7	1308.3	1346.3
57.5°	1035.1	<i>1053.5</i>	1118.4	1177.2	1216.4
60°	912.6	<i>935.9</i>	986.1	1046.1	1091.5
62.5°	795.0	<i>819.5</i>	862.4	915.1	966.5
65°	681.1	<i>699.5</i>	741.1	793.8	839.1
67.5°	570.8	<i>586.8</i>	628.4	665.2	712.9
70°	459.4	<i>480.2</i>	510.8	546.3	577.0
72.5°	369.9	<i>378.5</i>	404.2	430.0	461.8
75°	273.2	<i>287.9</i>	308.7	323.4	341.8
77.5°	196.0	<i>204.6</i>	216.8	229.1	246.2
80°	131.1	<i>134.7</i>	145.8	148.2	161.7
82.5°	79.6	<i>82.1</i>	84.5	85.7	90.6
85°	42.9	<i>42.9</i>	42.9	40.4	40.4
87.5°	24.5	<i>24.5</i>	20.8	17.1	12.2
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)