

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: P556986

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-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: P556986
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-80-94-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
3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

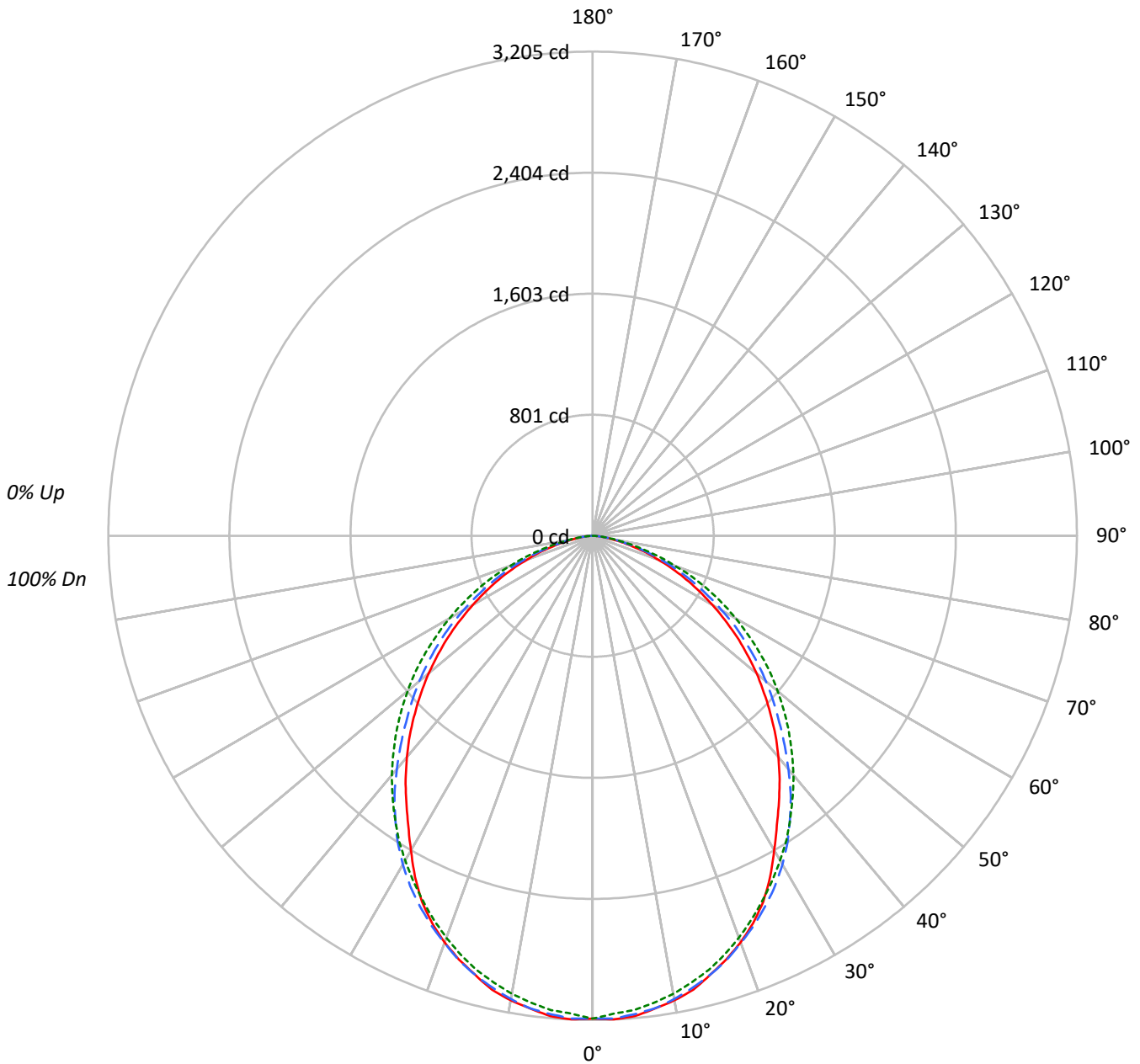
Lumens per Lamp: N/A
Luminaire Lumens: 7390.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	8600	8600	8600
5°	8623	8587	8514
10°	8532	8508	8411
15°	8380	8380	8285
20°	8203	8214	8108
25°	7933	8031	7904
30°	7470	7806	7710
35°	7059	7482	7494
40°	6715	7078	7263
45°	6331	6649	6990
50°	5927	6266	6692
55°	5467	5829	6331
60°	4923	5320	5888
65°	4347	4730	5355
70°	3622	4028	4550
75°	2847	3217	3562
80°	2036	2264	2512
85°	1328	1328	1250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.9	4.1
10°-20°	845.3	11.4
20°-30°	1235.3	16.7
30°-40°	1402.2	19.0
40°-50°	1353.6	18.3
50°-60°	1116.6	15.1
60°-70°	743.6	10.1
70°-80°	332.8	4.5
80°-90°	59.5	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°	2381.6	32.2
0°-40°	3783.8	51.2
0°-60°	6254.1	84.6
0°-90°	7390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7390.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3196	3196	3196	3196	3196	
5°	3192	3191	3179	3162	3152	302
15°	3008	3016	3008	2995	2974	848
25°	2672	2693	2705	2685	2662	1224
35°	2149	2178	2278	2290	2281	1346
45°	1664	1692	1747	1827	1837	1284
55°	1165	1185	1242	1311	1349	1040
65°	683	701	743	796	841	677
75°	274	288	309	324	343	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°	3196.0	3196.0	3196.0	3196.0	3196.0
2.5°	3204.6	3205.8	3198.4	3178.8	3166.5
5°	3192.3	3191.1	3178.8	3161.6	3151.8
7.5°	3156.7	3159.1	3155.5	3130.9	3117.4
10°	3122.3	3123.5	3113.7	3094.1	3078.1
12.5°	3078.1	3076.9	3063.4	3053.6	3027.8
15°	3008.1	3015.5	3008.1	2994.6	2973.8
17.5°	2940.6	2940.6	2945.5	2922.2	2906.2
20°	2864.5	2868.2	2868.2	2849.7	2831.3
22.5°	2776.1	2787.1	2790.8	2771.2	2749.1
25°	2671.7	2692.6	2704.9	2685.2	2661.9
27.5°	2545.2	2577.2	2614.0	2599.3	2573.5
30°	2404.0	2450.7	2512.1	2499.8	2481.4
32.5°	2270.2	2316.9	2401.6	2396.7	2386.9
35°	2148.7	2178.1	2277.6	2289.9	2281.3
37.5°	2033.3	2060.3	2153.6	2181.8	2174.4
40°	1911.7	1941.2	2014.8	2065.2	2067.6
42.5°	1791.4	1819.6	1879.8	1952.2	1952.2
45°	1663.7	1691.9	1747.2	1827.0	1836.8
47.5°	1538.4	1567.9	1621.9	1701.7	1717.7
50°	1415.7	1442.7	1496.7	1574.0	1598.6
52.5°	1288.0	1317.4	1370.2	1441.4	1477.1
55°	1165.2	1184.8	1242.5	1311.3	1349.4
57.5°	1037.5	1055.9	1121.0	1179.9	1219.2
60°	914.7	938.0	988.4	1048.5	1094.0
62.5°	796.8	821.4	864.4	917.2	968.7
65°	682.7	701.1	742.8	795.6	841.0
67.5°	572.2	588.1	629.9	666.7	714.6
70°	460.4	481.3	512.0	547.6	578.3
72.5°	370.8	379.4	405.2	431.0	462.9
75°	273.8	288.5	309.4	324.1	342.6
77.5°	196.4	205.0	217.3	229.6	246.8
80°	131.4	135.1	146.1	148.6	162.1
82.5°	79.8	82.3	84.7	85.9	90.9
85°	43.0	43.0	43.0	40.5	40.5
87.5°	24.6	24.6	20.9	17.2	12.3
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)