

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: P556912

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-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: P556912
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-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

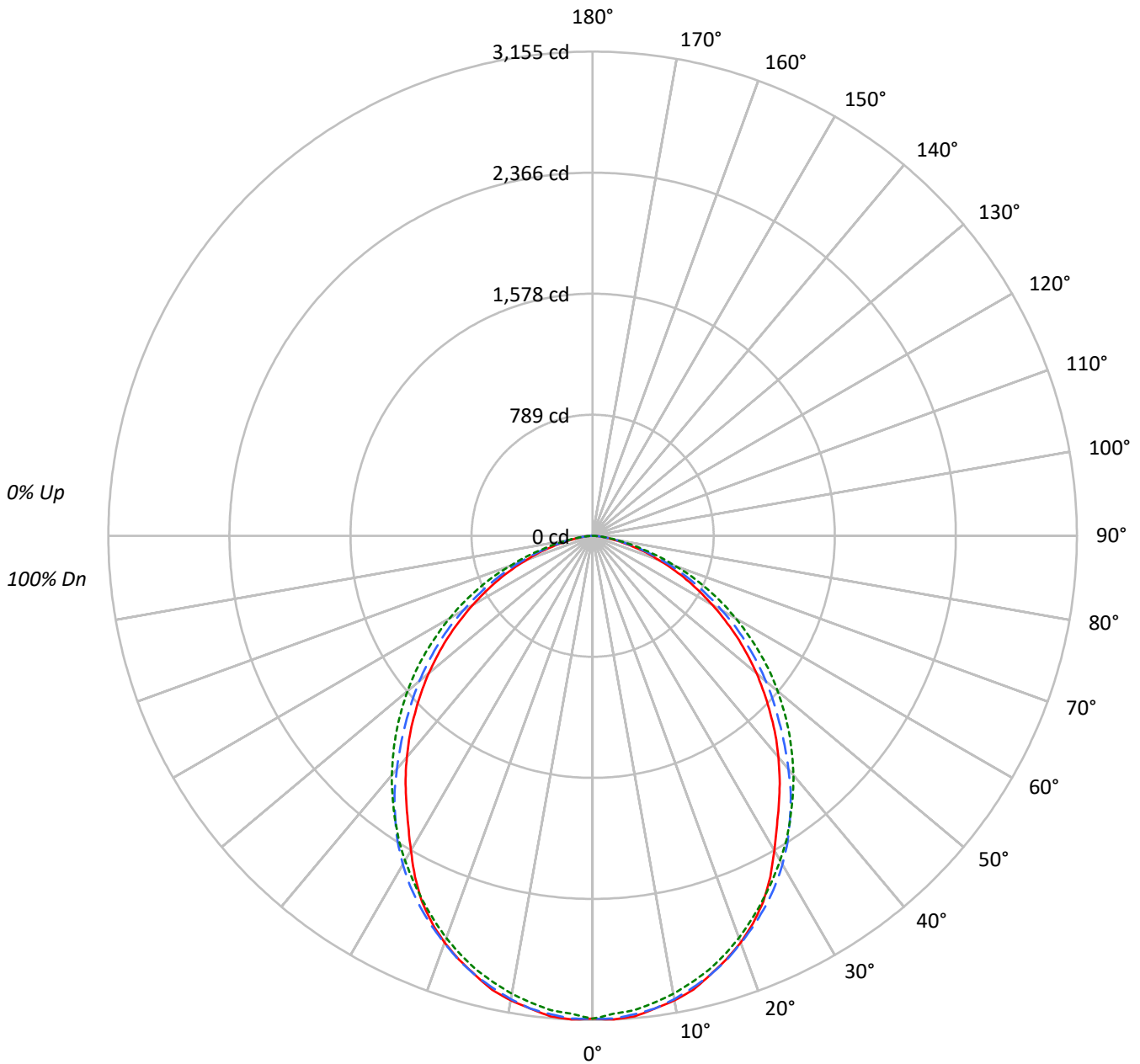
Lumens per Lamp: N/A
Luminaire Lumens: 7276.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8468	8468	8468
5°	8490	8454	8383
10°	8400	8377	8281
15°	8251	8251	8157
20°	8076	8087	7983
25°	7810	7907	7782
30°	7355	7685	7591
35°	6950	7366	7379
40°	6612	6969	7151
45°	6234	6546	6882
50°	5835	6169	6589
55°	5382	5740	6233
60°	4847	5237	5797
65°	4280	4657	5273
70°	3567	3966	4480
75°	2803	3167	3507
80°	2004	2230	2473
85°	1306	1306	1232



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.3	4.1
10°-20°	832.3	11.4
20°-30°	1216.3	16.7
30°-40°	1380.6	19.0
40°-50°	1332.8	18.3
50°-60°	1099.4	15.1
60°-70°	732.1	10.1
70°-80°	327.6	4.5
80°-90°	58.6	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°	2344.8	32.2
0°-40°	3725.4	51.2
0°-60°	6157.6	84.6
0°-90°	7276.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7276.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3147	3147	3147	3147	3147	
5°	3143	3142	3130	3113	3103	297
15°	2962	2969	2962	2948	2928	835
25°	2630	2651	2663	2644	2621	1205
35°	2116	2144	2242	2254	2246	1325
45°	1638	1666	1720	1799	1808	1264
55°	1147	1167	1223	1291	1328	1024
65°	672	690	731	783	828	666
75°	270	284	305	319	337	295
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3146.7	3146.7	3146.7	3146.7	3146.7
2.5°	3155.1	3156.4	3149.1	3129.8	3117.7
5°	3143.1	3141.8	3129.8	3112.8	3103.2
7.5°	3108.0	3110.4	3106.8	3082.6	3069.3
10°	3074.2	3075.4	3065.7	3046.3	3030.6
12.5°	3030.6	3029.4	3016.1	3006.5	2981.1
15°	2961.7	2969.0	2961.7	2948.4	2927.9
17.5°	2895.2	2895.2	2900.1	2877.1	2861.4
20°	2820.3	2823.9	2823.9	2805.8	2787.6
22.5°	2733.2	2744.1	2747.8	2728.4	2706.7
25°	2630.5	2651.0	2663.1	2643.8	2620.8
27.5°	2506.0	2537.4	2573.7	2559.2	2533.8
30°	2367.0	2412.9	2473.3	2461.3	2443.1
32.5°	2235.2	2281.1	2364.5	2359.7	2350.0
35°	2115.5	2144.5	2242.4	2254.5	2246.1
37.5°	2001.9	2028.5	2120.4	2148.2	2140.9
40°	1882.2	1911.2	1983.8	2033.3	2035.7
42.5°	1763.7	1791.5	1850.8	1922.1	1922.1
45°	1638.0	1665.8	1720.2	1798.8	1808.5
47.5°	1514.7	1543.7	1596.9	1675.5	1691.2
50°	1393.8	1420.4	1473.6	1549.8	1573.9
52.5°	1268.1	1297.1	1349.1	1419.2	1454.3
55°	1147.2	1166.6	1223.4	1291.1	1328.5
57.5°	1021.5	1039.6	1103.7	1161.7	1200.4
60°	900.6	923.6	973.1	1032.4	1077.1
62.5°	784.6	808.7	851.0	903.0	953.8
65°	672.1	690.3	731.4	783.3	828.1
67.5°	563.3	579.0	620.1	656.4	703.6
70°	453.3	473.9	504.1	539.2	569.4
72.5°	365.1	373.5	398.9	424.3	455.7
75°	269.6	284.1	304.6	319.1	337.3
77.5°	193.4	201.9	214.0	226.1	243.0
80°	129.3	133.0	143.9	146.3	159.6
82.5°	78.6	81.0	83.4	84.6	89.5
85°	42.3	42.3	42.3	39.9	39.9
87.5°	24.2	24.2	20.6	16.9	12.1
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)