

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: P556664

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-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: P556664
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-LD4-1STD-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

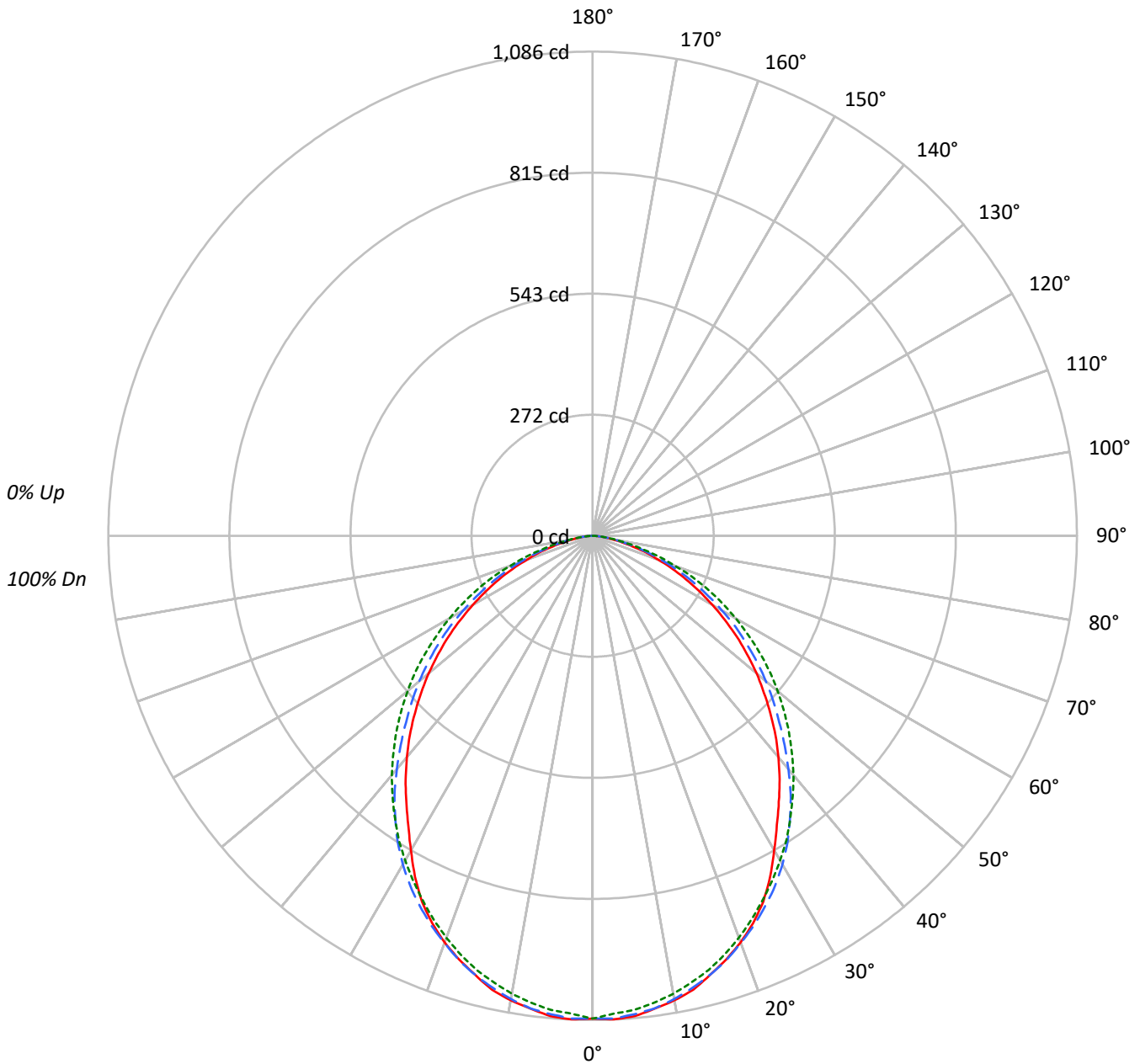
Lumens per Lamp: N/A
Luminaire Lumens: 2504.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2914	2914	2914
5°	2922	2910	2885
10°	2891	2883	2850
15°	2840	2840	2807
20°	2779	2783	2747
25°	2688	2721	2678
30°	2531	2645	2613
35°	2392	2535	2539
40°	2276	2398	2461
45°	2145	2253	2369
50°	2008	2123	2268
55°	1852	1975	2145
60°	1668	1802	1995
65°	1473	1603	1815
70°	1227	1365	1541
75°	965	1090	1207
80°	690	767	851
85°	451	451	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	4.1
10°-20°	286.4	11.4
20°-30°	418.6	16.7
30°-40°	475.1	19.0
40°-50°	458.7	18.3
50°-60°	378.4	15.1
60°-70°	252.0	10.1
70°-80°	112.7	4.5
80°-90°	20.2	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°	807.0	32.2
0°-40°	1282.1	51.2
0°-60°	2119.1	84.6
0°-90°	2504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2504.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1083	1083	1083	1083	1083	
5°	1082	1081	1077	1071	1068	102
15°	1019	1022	1019	1015	1008	287
25°	905	912	916	910	902	415
35°	728	738	772	776	773	456
45°	564	573	592	619	622	435
55°	395	402	421	444	457	352
65°	231	238	252	270	285	229
75°	93	98	105	110	116	101
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1082.9	1082.9	1082.9	1082.9	1082.9
2.5°	1085.8	1086.2	1083.7	1077.1	1072.9
5°	1081.7	1081.3	1077.1	1071.3	1067.9
7.5°	1069.6	1070.4	1069.2	1060.9	1056.3
10°	1058.0	1058.4	1055.0	1048.4	1043.0
12.5°	1043.0	1042.6	1038.0	1034.7	1025.9
15°	1019.3	1021.8	1019.3	1014.7	1007.6
17.5°	996.4	996.4	998.0	990.1	984.7
20°	970.6	971.8	971.8	965.6	959.4
22.5°	940.6	944.4	945.6	939.0	931.5
25°	905.3	912.3	916.5	909.8	901.9
27.5°	862.4	873.2	885.7	880.7	872.0
30°	814.6	830.4	851.2	847.0	840.8
32.5°	769.2	785.0	813.7	812.1	808.8
35°	728.0	738.0	771.7	775.9	773.0
37.5°	688.9	698.1	729.7	739.3	736.8
40°	647.8	657.7	682.7	699.8	700.6
42.5°	607.0	616.6	636.9	661.5	661.5
45°	563.7	573.3	592.0	619.0	622.4
47.5°	521.3	531.3	549.6	576.6	582.0
50°	479.7	488.8	507.1	533.3	541.7
52.5°	436.4	446.4	464.3	488.4	500.5
55°	394.8	401.5	421.0	444.3	457.2
57.5°	351.5	357.8	379.8	399.8	413.1
60°	309.9	317.8	334.9	355.3	370.7
62.5°	270.0	278.3	292.9	310.8	328.2
65°	231.3	237.6	251.7	269.6	285.0
67.5°	193.9	199.3	213.4	225.9	242.1
70°	156.0	163.1	173.5	185.5	195.9
72.5°	125.6	128.6	137.3	146.0	156.8
75°	92.8	97.8	104.8	109.8	116.1
77.5°	66.6	69.5	73.6	77.8	83.6
80°	44.5	45.8	49.5	50.3	54.9
82.5°	27.0	27.9	28.7	29.1	30.8
85°	14.6	14.6	14.6	13.7	13.7
87.5°	8.3	8.3	7.1	5.8	4.2
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)