

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: P556519

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-93-87-EDD**

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: P556519
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-LD4-1LO-35-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

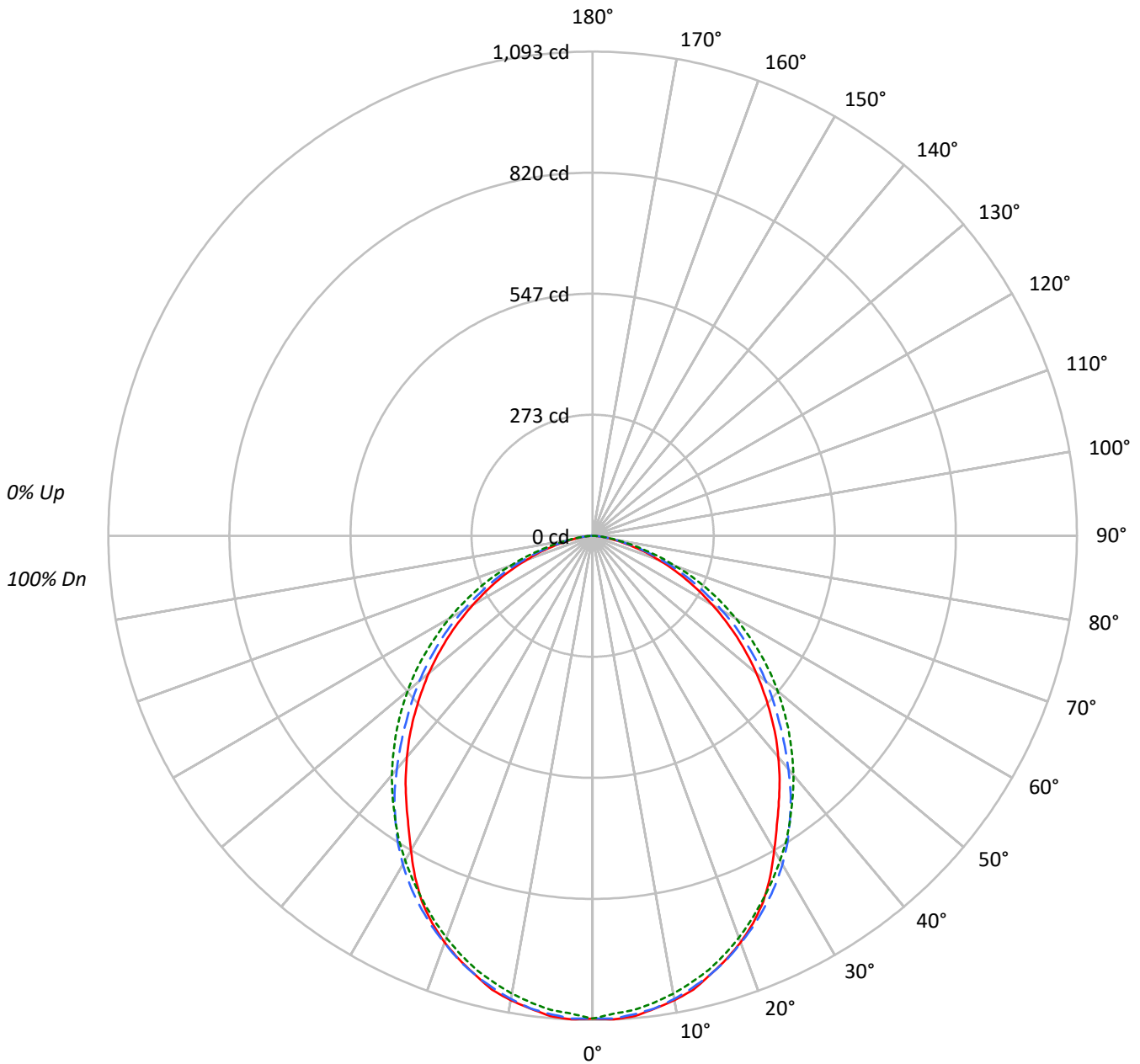
Lumens per Lamp: N/A
Luminaire Lumens: 2520.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2933	2933	2933
5°	2941	2928	2903
10°	2909	2901	2868
15°	2858	2858	2825
20°	2797	2801	2765
25°	2705	2739	2695
30°	2547	2662	2629
35°	2407	2552	2555
40°	2290	2414	2477
45°	2159	2267	2384
50°	2021	2137	2282
55°	1864	1988	2159
60°	1679	1814	2007
65°	1482	1613	1826
70°	1235	1374	1552
75°	971	1097	1214
80°	694	772	857
85°	454	454	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.6	4.1
10°-20°	288.3	11.4
20°-30°	421.3	16.7
30°-40°	478.2	19.0
40°-50°	461.6	18.3
50°-60°	380.8	15.1
60°-70°	253.6	10.1
70°-80°	113.5	4.5
80°-90°	20.3	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°	812.1	32.2
0°-40°	1290.3	51.2
0°-60°	2132.7	84.6
0°-90°	2520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1090	1090	1090	1090	1090	
5°	1089	1088	1084	1078	1075	103
15°	1026	1028	1026	1021	1014	289
25°	911	918	922	916	908	417
35°	733	743	777	781	778	459
45°	567	577	596	623	626	438
55°	397	404	424	447	460	355
65°	233	239	253	271	287	231
75°	93	98	106	110	117	102
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°	1089.8	1089.8	1089.8	1089.8	1089.8
2.5°	1092.8	1093.2	1090.7	1084.0	1079.8
5°	1088.6	1088.2	1084.0	1078.1	1074.8
7.5°	1076.4	1077.3	1076.0	1067.6	1063.0
10°	1064.7	1065.1	1061.8	1055.1	1049.6
12.5°	1049.6	1049.2	1044.6	1041.3	1032.5
15°	1025.8	1028.3	1025.8	1021.2	1014.1
17.5°	1002.7	1002.7	1004.4	996.5	991.0
20°	976.8	978.0	978.0	971.8	965.5
22.5°	946.6	950.4	951.7	945.0	937.4
25°	911.1	918.2	922.4	915.7	907.7
27.5°	867.9	878.8	891.4	886.4	877.6
30°	819.8	835.7	856.6	852.4	846.2
32.5°	774.1	790.1	818.9	817.3	813.9
35°	732.7	742.7	776.7	780.8	777.9
37.5°	693.3	702.6	734.4	744.0	741.5
40°	651.9	661.9	687.1	704.2	705.1
42.5°	610.9	620.5	641.0	665.7	665.7
45°	567.3	576.9	595.8	623.0	626.4
47.5°	524.6	534.7	553.1	580.3	585.7
50°	482.7	492.0	510.4	536.8	545.1
52.5°	439.2	449.2	467.3	491.5	503.7
55°	397.3	404.0	423.7	447.2	460.1
57.5°	353.8	360.1	382.3	402.4	415.8
60°	311.9	319.9	337.0	357.6	373.0
62.5°	271.7	280.1	294.8	312.8	330.3
65°	232.8	239.1	253.3	271.3	286.8
67.5°	195.1	200.5	214.8	227.3	243.7
70°	157.0	164.1	174.6	186.7	197.2
72.5°	126.4	129.4	138.2	147.0	157.8
75°	93.4	98.4	105.5	110.5	116.8
77.5°	67.0	69.9	74.1	78.3	84.2
80°	44.8	46.1	49.8	50.7	55.3
82.5°	27.2	28.1	28.9	29.3	31.0
85°	14.7	14.7	14.7	13.8	13.8
87.5°	8.4	8.4	7.1	5.9	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)