

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: P556517

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-93-86-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: P556517
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-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

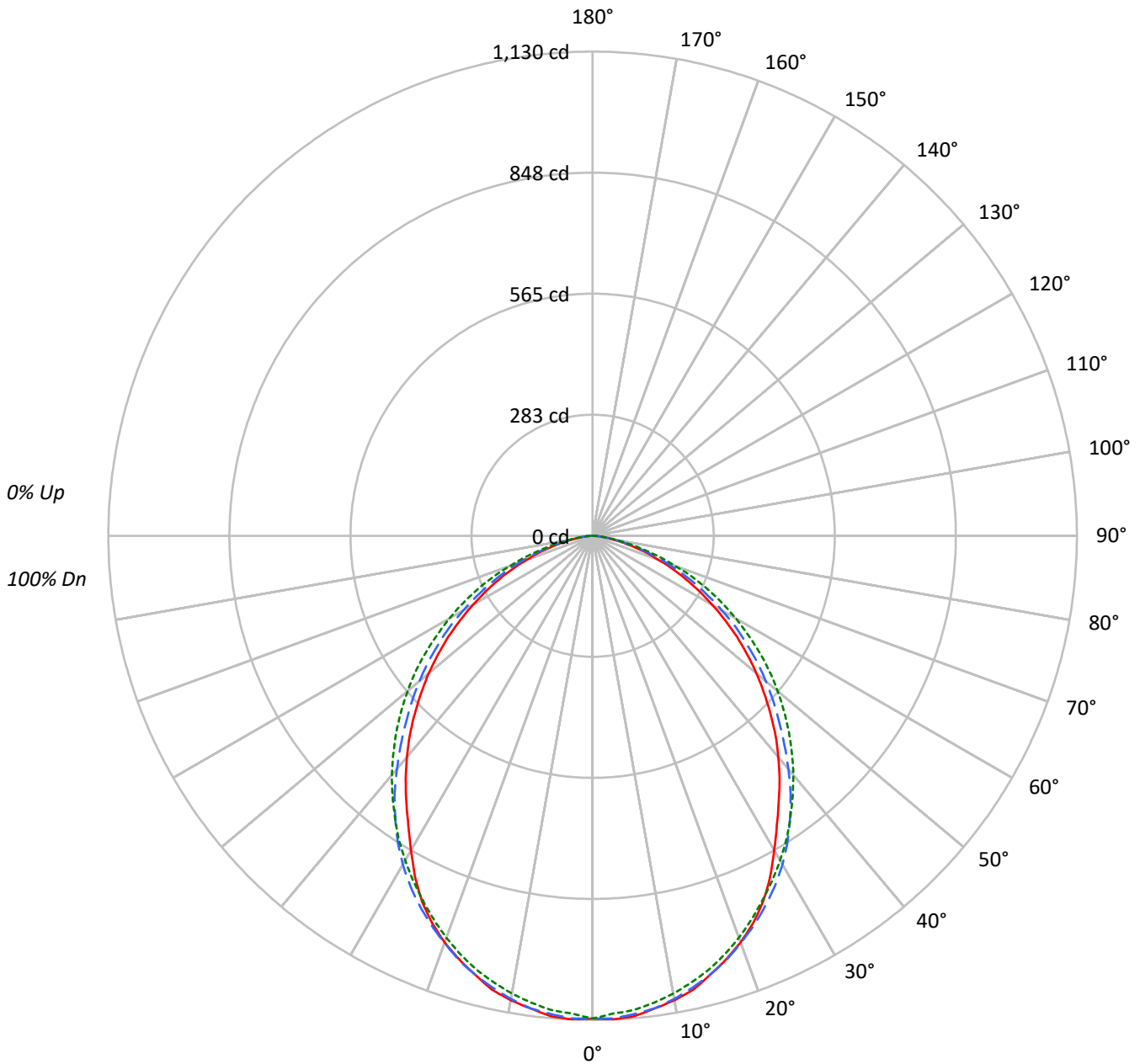
Lumens per Lamp: N/A
Luminaire Lumens: 2605.0 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3032	3032	3032
5°	3040	3027	3001
10°	3007	2999	2965
15°	2954	2954	2920
20°	2891	2895	2858
25°	2796	2831	2786
30°	2633	2751	2718
35°	2488	2638	2642
40°	2367	2495	2560
45°	2232	2344	2464
50°	2089	2209	2359
55°	1927	2055	2232
60°	1735	1875	2075
65°	1532	1667	1888
70°	1277	1420	1604
75°	1003	1134	1256
80°	717	798	885
85°	466	466	442



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.1	4.1
10°-20°	298.0	11.4
20°-30°	435.5	16.7
30°-40°	494.3	19.0
40°-50°	477.2	18.3
50°-60°	393.6	15.1
60°-70°	262.1	10.1
70°-80°	117.3	4.5
80°-90°	21.0	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°	839.5	32.2
0°-40°	1333.8	51.2
0°-60°	2204.6	84.6
0°-90°	2605.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2605.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1127	1127	1127	1127	1127	
5°	1125	1125	1120	1114	1111	107
15°	1060	1063	1060	1056	1048	299
25°	942	949	954	946	938	431
35°	757	768	803	807	804	475
45°	586	596	616	644	648	452
55°	411	418	438	462	476	367
65°	241	247	262	280	296	239
75°	96	102	109	114	121	106
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°	1126.6	1126.6	1126.6	1126.6	1126.6
2.5°	1129.6	1130.1	1127.5	1120.5	1116.2
5°	1125.3	1124.9	1120.5	1114.5	1111.0
7.5°	1112.7	1113.6	1112.3	1103.7	1098.9
10°	1100.6	1101.1	1097.6	1090.7	1085.0
12.5°	1085.0	1084.6	1079.9	1076.4	1067.3
15°	1060.4	1063.0	1060.4	1055.6	1048.3
17.5°	1036.6	1036.6	1038.3	1030.1	1024.5
20°	1009.7	1011.0	1011.0	1004.5	998.1
22.5°	978.6	982.5	983.8	976.8	969.1
25°	941.8	949.1	953.5	946.5	938.3
27.5°	897.2	908.5	921.4	916.3	907.2
30°	847.4	863.9	885.5	881.2	874.7
32.5°	800.3	816.7	846.6	844.8	841.4
35°	757.4	767.8	802.9	807.2	804.2
37.5°	716.7	726.2	759.1	769.1	766.5
40°	673.9	684.3	710.2	728.0	728.8
42.5°	631.5	641.4	662.6	688.2	688.2
45°	586.5	596.4	615.9	644.0	647.5
47.5°	542.3	552.7	571.7	599.9	605.5
50°	499.0	508.5	527.6	554.9	563.5
52.5°	454.0	464.4	483.0	508.1	520.7
55°	410.7	417.7	438.0	462.2	475.7
57.5°	365.7	372.2	395.2	415.9	429.8
60°	322.4	330.7	348.4	369.6	385.6
62.5°	280.9	289.5	304.7	323.3	341.5
65°	240.6	247.1	261.8	280.5	296.5
67.5°	201.7	207.3	222.0	235.0	251.9
70°	162.3	169.7	180.5	193.0	203.9
72.5°	130.7	133.7	142.8	151.9	163.2
75°	96.5	101.7	109.1	114.3	120.8
77.5°	69.2	72.3	76.6	80.9	87.0
80°	46.3	47.6	51.5	52.4	57.1
82.5°	28.1	29.0	29.9	30.3	32.0
85°	15.1	15.1	15.1	14.3	14.3
87.5°	8.7	8.7	7.4	6.1	4.3
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)