

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: P556782

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-93-97-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: P556782
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-35-UNV-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

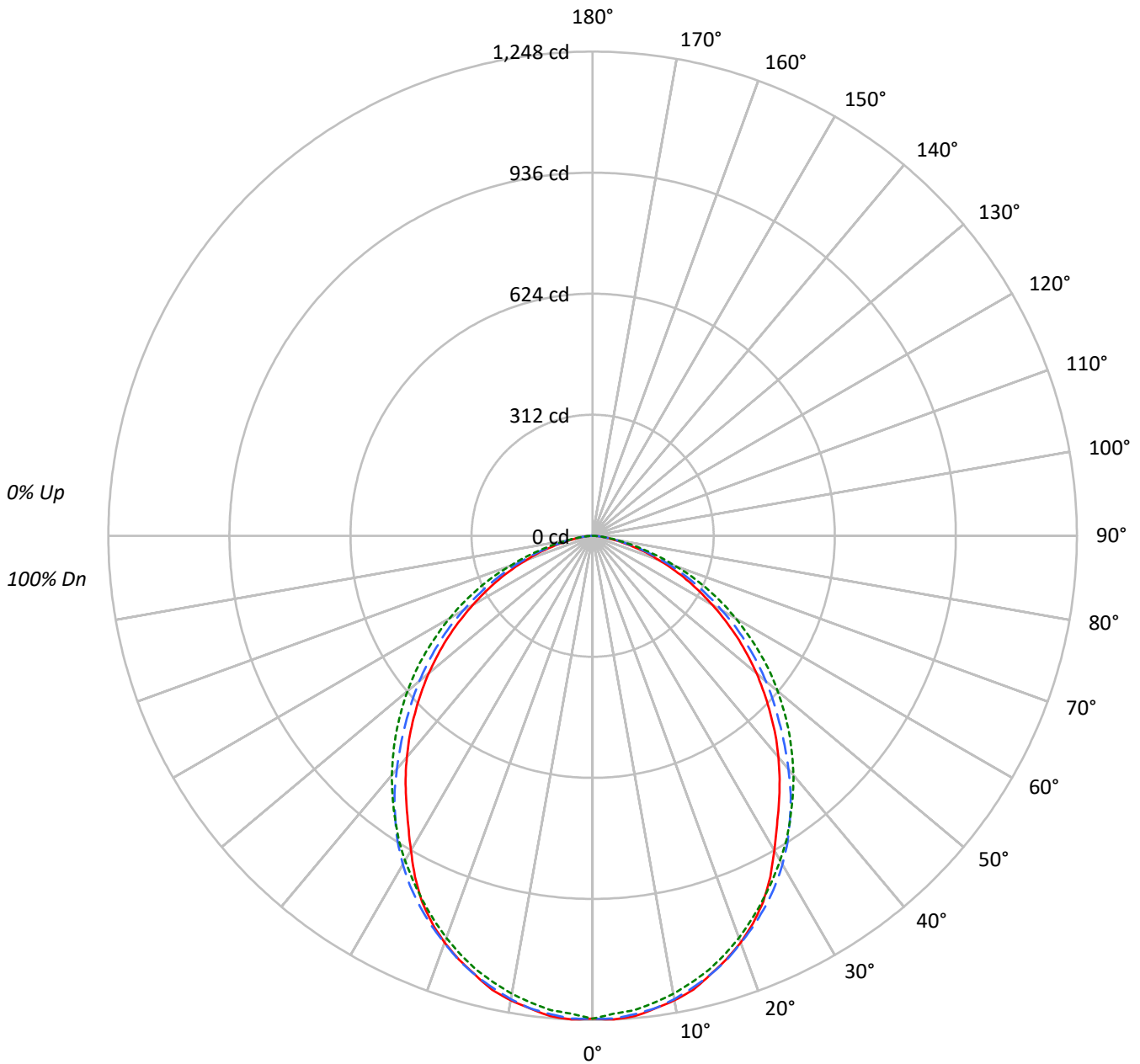
Lumens per Lamp: N/A
Luminaire Lumens: 2878.0 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P556782

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-93-97-EDD-90

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°	3349	3349	3349
5°	3358	3344	3316
10°	3323	3313	3276
15°	3264	3264	3226
20°	3195	3199	3157
25°	3089	3128	3078
30°	2909	3040	3003
35°	2749	2914	2918
40°	2615	2757	2829
45°	2466	2589	2722
50°	2308	2440	2606
55°	2129	2270	2465
60°	1917	2072	2293
65°	1693	1842	2085
70°	1411	1569	1772
75°	1108	1253	1387
80°	793	882	978
85°	516	516	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.2	4.1
10°-20°	329.2	11.4
20°-30°	481.1	16.7
30°-40°	546.1	19.0
40°-50°	527.2	18.3
50°-60°	434.9	15.1
60°-70°	289.6	10.1
70°-80°	129.6	4.5
80°-90°	23.2	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°	927.5	32.2
0°-40°	1473.6	51.2
0°-60°	2435.6	84.6
0°-90°	2878.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2878.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1245	1245	1245	1245	1245	
5°	1243	1243	1238	1231	1227	118
15°	1172	1174	1172	1166	1158	330
25°	1040	1049	1053	1046	1037	476
35°	837	848	887	892	888	524
45°	648	659	680	712	715	500
55°	454	461	484	511	526	405
65°	266	273	289	310	328	264
75°	107	112	120	126	133	117
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1244.7	1244.7	1244.7	1244.7	1244.7
2.5°	1248.0	1248.5	1245.6	1238.0	1233.2
5°	1243.2	1242.7	1238.0	1231.3	1227.4
7.5°	1229.4	1230.3	1228.9	1219.3	1214.1
10°	1216.0	1216.4	1212.6	1205.0	1198.8
12.5°	1198.8	1198.3	1193.0	1189.2	1179.2
15°	1171.5	1174.4	1171.5	1166.2	1158.1
17.5°	1145.2	1145.2	1147.1	1138.0	1131.8
20°	1115.6	1117.0	1117.0	1109.8	1102.6
22.5°	1081.1	1085.4	1086.9	1079.2	1070.6
25°	1040.5	1048.6	1053.4	1045.7	1036.7
27.5°	991.2	1003.7	1018.0	1012.3	1002.2
30°	936.2	954.4	978.3	973.5	966.4
32.5°	884.1	902.3	935.3	933.4	929.6
35°	836.8	848.3	887.0	891.8	888.4
37.5°	791.8	802.4	838.7	849.7	846.8
40°	744.5	756.0	784.7	804.3	805.2
42.5°	697.6	708.6	732.1	760.3	760.3
45°	647.9	658.9	680.4	711.5	715.3
47.5°	599.1	610.6	631.7	662.7	669.0
50°	551.3	561.8	582.9	613.0	622.6
52.5°	501.6	513.1	533.6	561.4	575.2
55°	453.8	461.4	483.9	510.7	525.5
57.5°	404.0	411.2	436.6	459.5	474.8
60°	356.2	365.3	384.9	408.4	426.0
62.5°	310.3	319.9	336.6	357.2	377.3
65°	265.9	273.0	289.3	309.9	327.5
67.5°	222.8	229.0	245.3	259.6	278.3
70°	179.3	187.4	199.4	213.3	225.2
72.5°	144.4	147.8	157.8	167.8	180.3
75°	106.6	112.4	120.5	126.2	133.4
77.5°	76.5	79.9	84.6	89.4	96.1
80°	51.2	52.6	56.9	57.9	63.1
82.5°	31.1	32.0	33.0	33.5	35.4
85°	16.7	16.7	16.7	15.8	15.8
87.5°	9.6	9.6	8.1	6.7	4.8
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)