

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: P556776

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-93-88-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: P556776
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-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

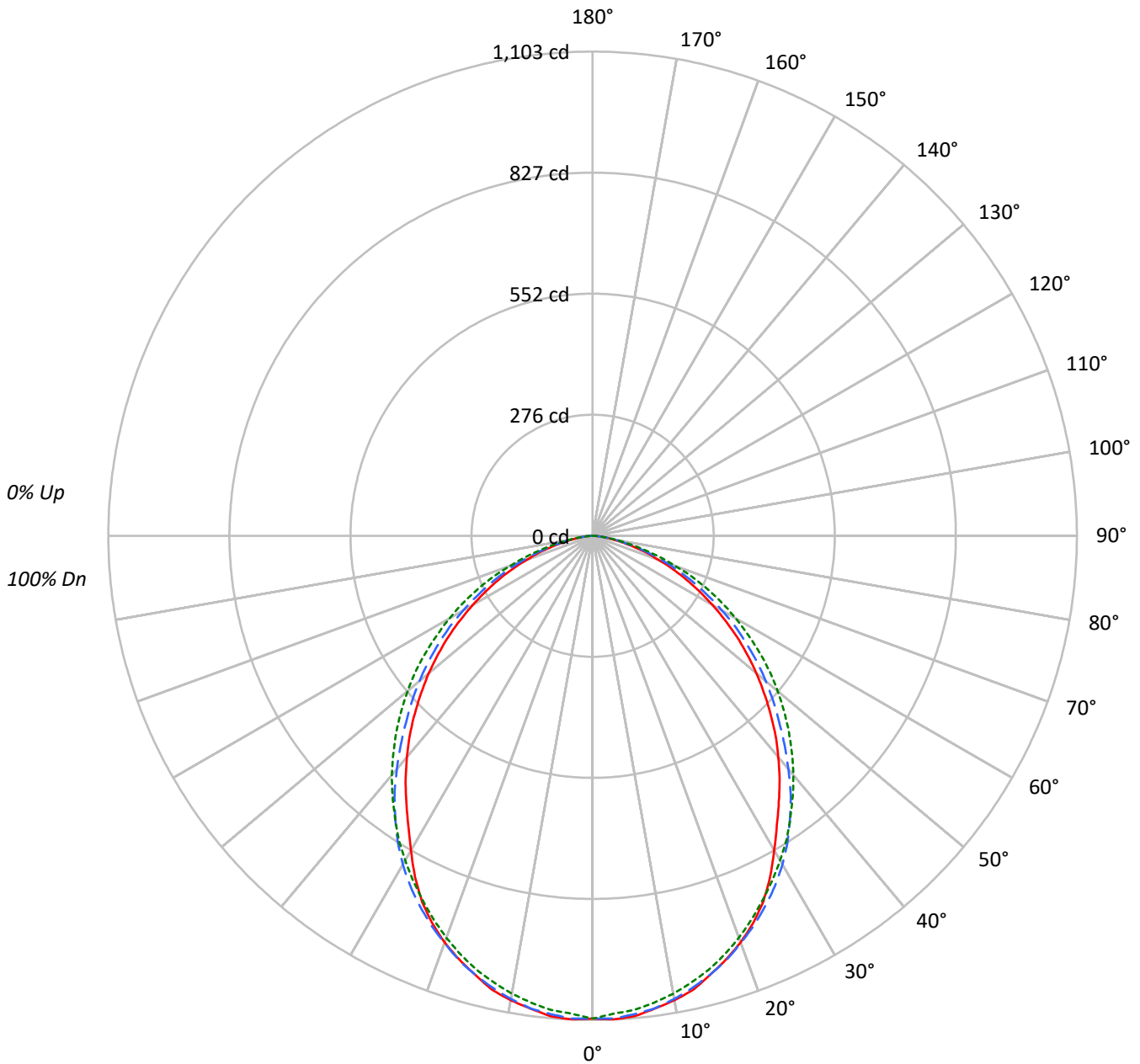
Lumens per Lamp: N/A
Luminaire Lumens: 2543.0 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	2960	2960	2960
5°	2967	2955	2930
10°	2936	2928	2894
15°	2884	2884	2851
20°	2823	2826	2790
25°	2730	2764	2720
30°	2571	2686	2653
35°	2429	2575	2579
40°	2311	2435	2499
45°	2179	2288	2406
50°	2039	2156	2303
55°	1881	2006	2178
60°	1694	1830	2026
65°	1496	1628	1843
70°	1246	1386	1566
75°	979	1107	1226
80°	700	779	865
85°	457	457	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.5	4.1
10°-20°	290.9	11.4
20°-30°	425.1	16.7
30°-40°	482.5	19.0
40°-50°	465.8	18.3
50°-60°	384.2	15.1
60°-70°	255.9	10.1
70°-80°	114.5	4.5
80°-90°	20.5	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°	819.5	32.2
0°-40°	1302.1	51.2
0°-60°	2152.1	84.6
0°-90°	2543.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2543.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1098	1098	1094	1088	1085	104
15°	1035	1038	1035	1030	1023	292
25°	919	927	931	924	916	421
35°	739	750	784	788	785	463
45°	572	582	601	629	632	442
55°	401	408	428	451	464	358
65°	235	241	256	274	289	233
75°	94	99	106	112	118	103
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°	1099.8	1099.8	1099.8	1099.8	1099.8
2.5°	1102.7	1103.2	1100.6	1093.9	1089.6
5°	1098.5	1098.1	1093.9	1088.0	1084.6
7.5°	1086.3	1087.1	1085.8	1077.4	1072.7
10°	1074.4	1074.9	1071.5	1064.7	1059.2
12.5°	1059.2	1058.8	1054.2	1050.8	1041.9
15°	1035.1	1037.7	1035.1	1030.5	1023.3
17.5°	1011.9	1011.9	1013.6	1005.6	1000.1
20°	985.7	987.0	987.0	980.6	974.3
22.5°	955.3	959.1	960.4	953.6	946.0
25°	919.4	926.6	930.8	924.0	916.0
27.5°	875.9	886.8	899.5	894.4	885.6
30°	827.3	843.3	864.4	860.2	853.9
32.5°	781.2	797.3	826.4	824.7	821.4
35°	739.4	749.5	783.7	788.0	785.0
37.5°	699.7	709.0	741.1	750.8	748.3
40°	657.8	668.0	693.3	710.7	711.5
42.5°	616.4	626.2	646.9	671.8	671.8
45°	572.5	582.2	601.2	628.7	632.1
47.5°	529.4	539.5	558.1	585.6	591.1
50°	487.1	496.4	515.0	541.7	550.1
52.5°	443.2	453.3	471.5	496.0	508.3
55°	401.0	407.7	427.6	451.2	464.3
57.5°	357.0	363.4	385.7	406.0	419.5
60°	314.8	322.8	340.1	360.8	376.5
62.5°	274.2	282.7	297.4	315.6	333.4
65°	234.9	241.3	255.6	273.8	289.4
67.5°	196.9	202.4	216.7	229.4	245.9
70°	158.4	165.6	176.2	188.4	199.0
72.5°	127.6	130.6	139.4	148.3	159.3
75°	94.2	99.3	106.5	111.5	117.9
77.5°	67.6	70.6	74.8	79.0	84.9
80°	45.2	46.5	50.3	51.1	55.8
82.5°	27.5	28.3	29.2	29.6	31.3
85°	14.8	14.8	14.8	13.9	13.9
87.5°	8.5	8.5	7.2	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)