

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: P556780

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-93-96-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: P556780
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-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

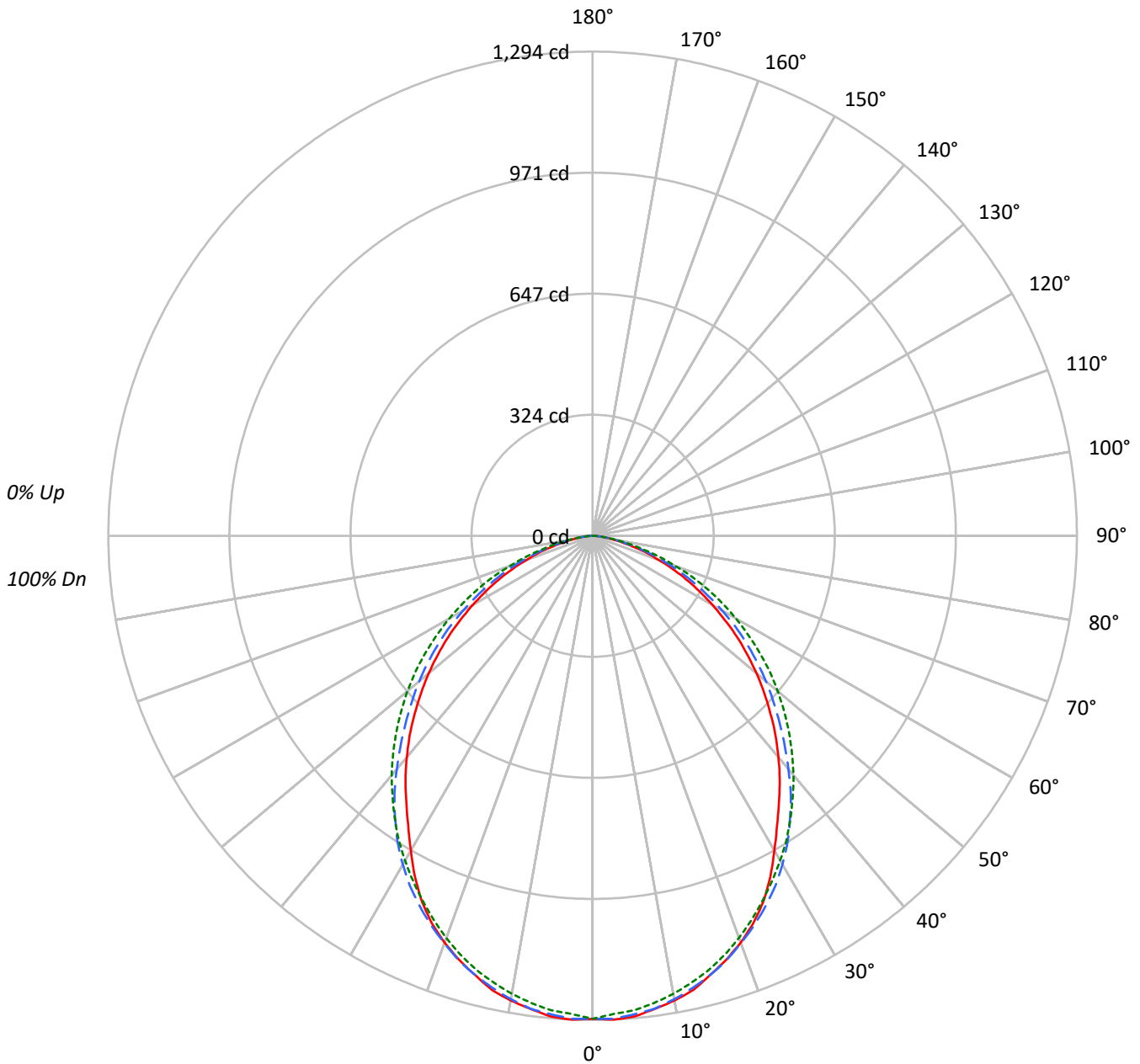
Lumens per Lamp: N/A
Luminaire Lumens: 2985.0 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3474	3474	3474
5°	3483	3468	3439
10°	3446	3437	3397
15°	3385	3385	3346
20°	3313	3318	3275
25°	3204	3244	3192
30°	3017	3153	3114
35°	2851	3022	3027
40°	2713	2859	2934
45°	2557	2686	2823
50°	2394	2531	2703
55°	2208	2355	2557
60°	1989	2148	2378
65°	1755	1910	2163
70°	1463	1627	1838
75°	1150	1300	1439
80°	823	914	1015
85°	537	537	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	4.1
10°-20°	341.5	11.4
20°-30°	499.0	16.7
30°-40°	566.4	19.0
40°-50°	546.8	18.3
50°-60°	451.0	15.1
60°-70°	300.4	10.1
70°-80°	134.4	4.5
80°-90°	24.0	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°	962.0	32.2
0°-40°	1528.4	51.2
0°-60°	2526.2	84.6
0°-90°	2985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2985.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1289	1289	1284	1277	1273	122
15°	1215	1218	1215	1210	1201	343
25°	1079	1088	1093	1085	1075	494
35°	868	880	920	925	922	544
45°	672	683	706	738	742	518
55°	471	479	502	530	545	420
65°	276	283	300	321	340	273
75°	111	116	125	131	138	121
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°	1290.9	1290.9	1290.9	1290.9	1290.9
2.5°	1294.4	1294.9	1291.9	1284.0	1279.0
5°	1289.4	1289.0	1284.0	1277.0	1273.1
7.5°	1275.1	1276.1	1274.6	1264.7	1259.2
10°	1261.2	1261.7	1257.7	1249.8	1243.3
12.5°	1243.3	1242.8	1237.4	1233.4	1223.0
15°	1215.1	1218.0	1215.1	1209.6	1201.2
17.5°	1187.8	1187.8	1189.8	1180.3	1173.9
20°	1157.0	1158.5	1158.5	1151.1	1143.6
22.5°	1121.3	1125.8	1127.3	1119.3	1110.4
25°	1079.2	1087.6	1092.6	1084.6	1075.2
27.5°	1028.1	1041.0	1055.9	1049.9	1039.5
30°	971.1	989.9	1014.7	1009.7	1002.3
32.5°	917.0	935.8	970.1	968.1	964.1
35°	867.9	879.8	920.0	924.9	921.5
37.5°	821.3	832.2	869.9	881.3	878.3
40°	772.2	784.1	813.8	834.2	835.2
42.5°	723.6	735.0	759.3	788.5	788.5
45°	672.0	683.4	705.7	738.0	741.9
47.5°	621.4	633.3	655.1	687.4	693.8
50°	571.8	582.7	604.6	635.8	645.7
52.5°	520.2	532.1	553.5	582.2	596.6
55°	470.6	478.6	501.9	529.7	545.0
57.5°	419.1	426.5	452.8	476.6	492.5
60°	369.5	378.9	399.2	423.5	441.9
62.5°	321.9	331.8	349.1	370.5	391.3
65°	275.7	283.2	300.0	321.4	339.7
67.5°	231.1	237.6	254.4	269.3	288.6
70°	186.0	194.4	206.8	221.2	233.6
72.5°	149.8	153.2	163.7	174.1	187.0
75°	110.6	116.5	125.0	130.9	138.4
77.5°	79.4	82.8	87.8	92.7	99.7
80°	53.1	54.6	59.0	60.0	65.5
82.5°	32.2	33.2	34.2	34.7	36.7
85°	17.4	17.4	17.4	16.4	16.4
87.5°	9.9	9.9	8.4	6.9	5.0
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)