

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: P556160

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-81-84-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: P556160
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-LD4-1HI-30-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

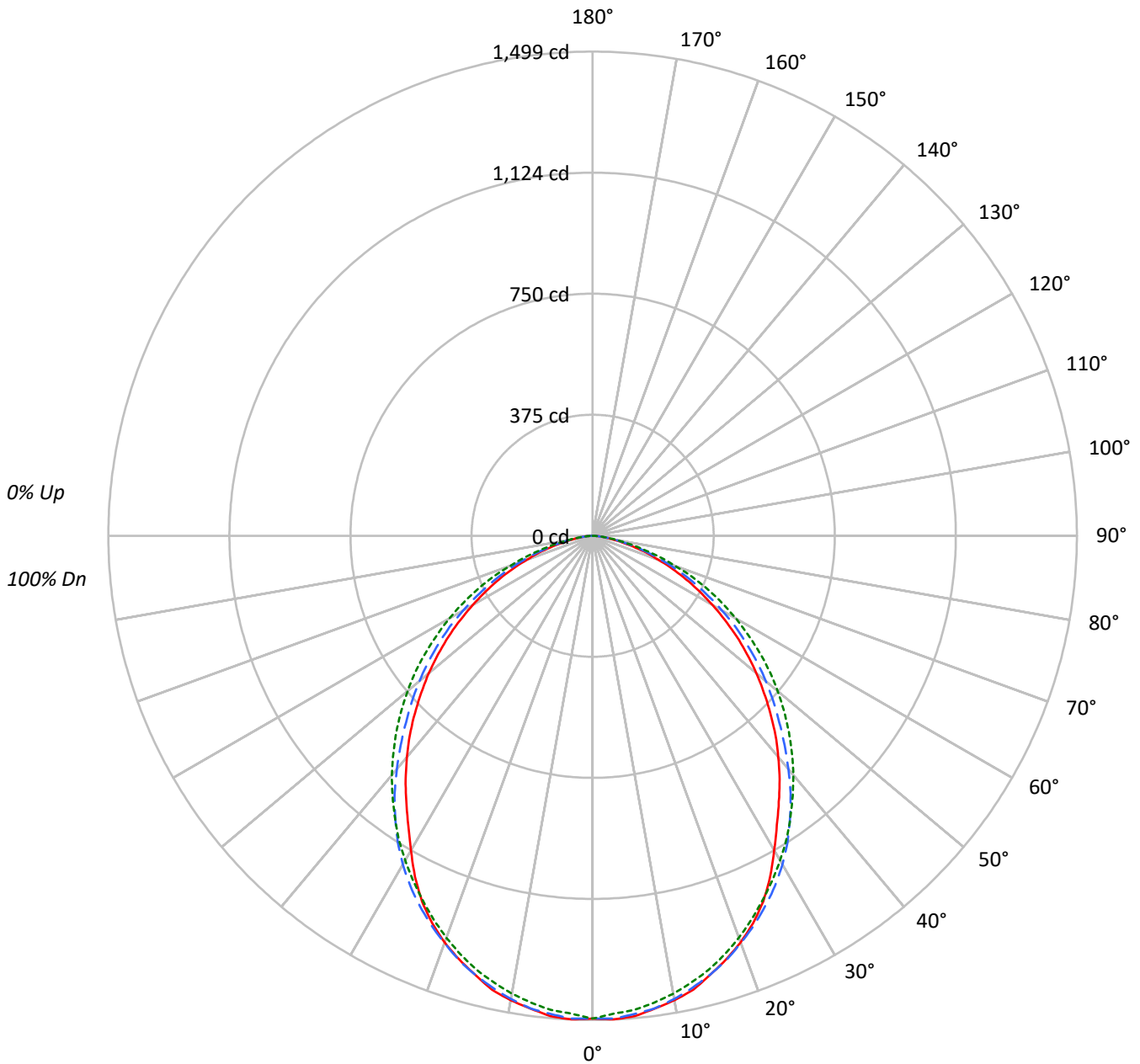
Lumens per Lamp: N/A
Luminaire Lumens: 3456.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): 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°	4022	4022	4022
5°	4033	4016	3982
10°	3990	3979	3933
15°	3919	3919	3874
20°	3836	3841	3792
25°	3710	3756	3696
30°	3494	3650	3606
35°	3301	3499	3505
40°	3140	3310	3397
45°	2961	3110	3269
50°	2771	2930	3130
55°	2556	2726	2960
60°	2302	2488	2753
65°	2033	2212	2504
70°	1694	1884	2127
75°	1331	1504	1666
80°	951	1058	1175
85°	621	621	584



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.7	4.1
10°-20°	395.3	11.4
20°-30°	577.7	16.7
30°-40°	655.8	19.0
40°-50°	633.0	18.3
50°-60°	522.2	15.1
60°-70°	347.8	10.1
70°-80°	155.6	4.5
80°-90°	27.8	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°	1113.8	32.2
0°-40°	1769.5	51.2
0°-60°	2924.8	84.6
0°-90°	3456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3456.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1495	1495	1495	1495	1495	
5°	1493	1492	1487	1479	1474	141
15°	1407	1410	1407	1400	1391	397
25°	1249	1259	1265	1256	1245	572
35°	1005	1019	1065	1071	1067	630
45°	778	791	817	854	859	600
55°	545	554	581	613	631	486
65°	319	328	347	372	393	317
75°	128	135	145	152	160	140
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1494.6	1494.6	1494.6	1494.6	1494.6
2.5°	1498.7	1499.2	1495.8	1486.6	1480.9
5°	1492.9	1492.3	1486.6	1478.6	1474.0
7.5°	1476.3	1477.4	1475.7	1464.2	1457.9
10°	1460.2	1460.8	1456.2	1447.0	1439.5
12.5°	1439.5	1438.9	1432.6	1428.0	1416.0
15°	1406.8	1410.2	1406.8	1400.5	1390.7
17.5°	1375.2	1375.2	1377.5	1366.6	1359.1
20°	1339.6	1341.3	1341.3	1332.7	1324.1
22.5°	1298.3	1303.4	1305.1	1296.0	1285.6
25°	1249.4	1259.2	1265.0	1255.8	1244.9
27.5°	1190.3	1205.2	1222.5	1215.6	1203.5
30°	1124.3	1146.1	1174.8	1169.1	1160.4
32.5°	1061.7	1083.5	1123.1	1120.8	1116.2
35°	1004.8	1018.6	1065.1	1070.9	1066.9
37.5°	950.9	963.5	1007.1	1020.3	1016.9
40°	894.0	907.8	942.3	965.8	966.9
42.5°	837.8	851.0	879.1	913.0	913.0
45°	778.0	791.2	817.1	854.4	859.0
47.5°	719.5	733.2	758.5	795.8	803.3
50°	662.0	674.7	699.9	736.1	747.6
52.5°	602.3	616.1	640.8	674.1	690.8
55°	544.9	554.1	581.1	613.2	631.0
57.5°	485.2	493.8	524.2	551.8	570.2
60°	427.8	438.7	462.2	490.4	511.6
62.5°	372.7	384.1	404.2	428.9	453.0
65°	319.3	327.9	347.4	372.1	393.3
67.5°	267.6	275.0	294.6	311.8	334.2
70°	215.3	225.1	239.4	256.1	270.4
72.5°	173.4	177.4	189.5	201.5	216.5
75°	128.0	134.9	144.7	151.6	160.2
77.5°	91.9	95.9	101.6	107.4	115.4
80°	61.4	63.2	68.3	69.5	75.8
82.5°	37.3	38.5	39.6	40.2	42.5
85°	20.1	20.1	20.1	18.9	18.9
87.5°	11.5	11.5	9.8	8.0	5.7
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)