

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: P556176

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-82-84-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: P556176
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-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 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

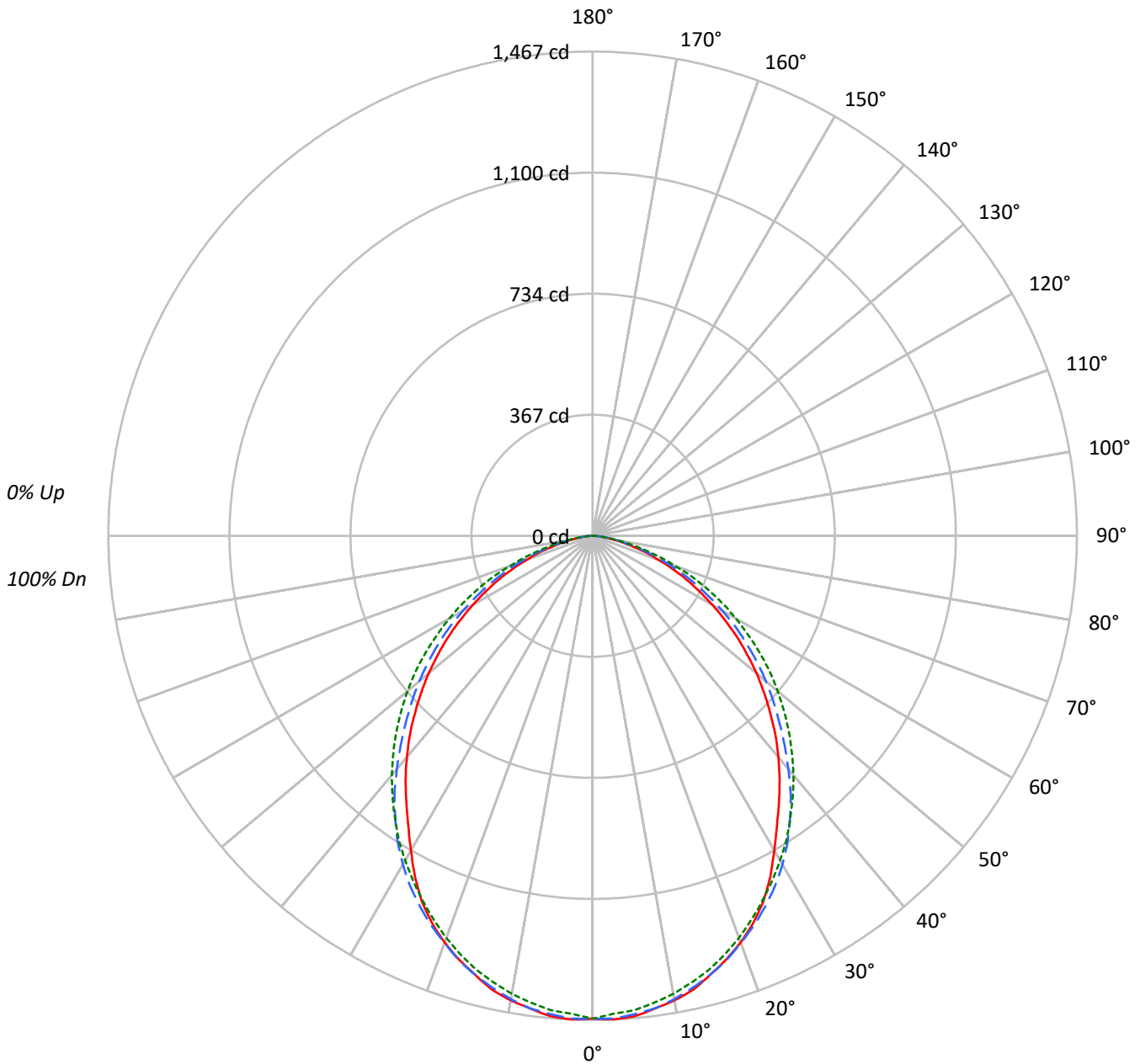
Lumens per Lamp: N/A
Luminaire Lumens: 3383.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				20				
RC	80				70				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°	3937	3937	3937
5°	3948	3931	3897
10°	3906	3895	3850
15°	3836	3836	3792
20°	3755	3760	3712
25°	3632	3676	3618
30°	3420	3573	3530
35°	3231	3425	3431
40°	3074	3240	3325
45°	2898	3044	3200
50°	2713	2869	3064
55°	2502	2669	2898
60°	2253	2435	2695
65°	1990	2166	2451
70°	1659	1844	2083
75°	1303	1472	1630
80°	931	1037	1150
85°	608	608	571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.8	4.1
10°-20°	387.0	11.4
20°-30°	565.5	16.7
30°-40°	641.9	19.0
40°-50°	619.7	18.3
50°-60°	511.2	15.1
60°-70°	340.4	10.1
70°-80°	152.3	4.5
80°-90°	27.3	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°	1090.2	32.2
0°-40°	1732.2	51.2
0°-60°	2863.0	84.6
0°-90°	3383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3383.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1463	1463	1463	1463	1463	
5°	1461	1461	1455	1447	1443	138
15°	1377	1380	1377	1371	1361	388
25°	1223	1233	1238	1229	1219	560
35°	984	997	1043	1048	1044	616
45°	762	774	800	836	841	588
55°	533	542	569	600	618	476
65°	312	321	340	364	385	310
75°	125	132	142	148	157	137
85°	20	20	20	18	18	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1463.1	1463.1	1463.1	1463.1	1463.1
2.5°	1467.0	1467.6	1464.2	1455.2	1449.6
5°	1461.4	1460.8	1455.2	1447.3	1442.8
7.5°	1445.1	1446.2	1444.5	1433.3	1427.1
10°	1429.3	1429.9	1425.4	1416.4	1409.1
12.5°	1409.1	1408.5	1402.4	1397.9	1386.1
15°	1377.1	1380.4	1377.1	1370.9	1361.3
17.5°	1346.2	1346.2	1348.4	1337.7	1330.4
20°	1311.3	1313.0	1313.0	1304.6	1296.1
22.5°	1270.8	1275.9	1277.6	1268.6	1258.5
25°	1223.1	1232.6	1238.2	1229.2	1218.6
27.5°	1165.2	1179.8	1196.6	1189.9	1178.1
30°	1100.5	1121.9	1150.0	1144.4	1135.9
32.5°	1039.3	1060.6	1099.4	1097.2	1092.7
35°	983.6	997.1	1042.6	1048.3	1044.3
37.5°	930.8	943.1	985.9	998.8	995.4
40°	875.1	888.6	922.4	945.4	946.5
42.5°	820.1	833.0	860.5	893.7	893.7
45°	761.6	774.5	799.8	836.4	840.9
47.5°	704.3	717.8	742.5	779.0	786.3
50°	648.1	660.4	685.2	720.6	731.8
52.5°	589.6	603.1	627.3	659.9	676.2
55°	533.4	542.4	568.8	600.3	617.7
57.5°	474.9	483.4	513.2	540.1	558.1
60°	418.7	429.4	452.5	480.0	500.8
62.5°	364.8	376.0	395.7	419.9	443.5
65°	312.5	320.9	340.1	364.2	385.0
67.5°	261.9	269.2	288.3	305.2	327.1
70°	210.8	220.3	234.4	250.7	264.7
72.5°	169.7	173.7	185.5	197.3	211.9
75°	125.3	132.1	141.6	148.4	156.8
77.5°	89.9	93.9	99.5	105.1	113.0
80°	60.1	61.8	66.9	68.0	74.2
82.5°	36.5	37.7	38.8	39.3	41.6
85°	19.7	19.7	19.7	18.5	18.5
87.5°	11.2	11.2	9.6	7.9	5.6
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)