

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: P556281

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-80-88-EDD**

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: P556281
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-40-UNV-80-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

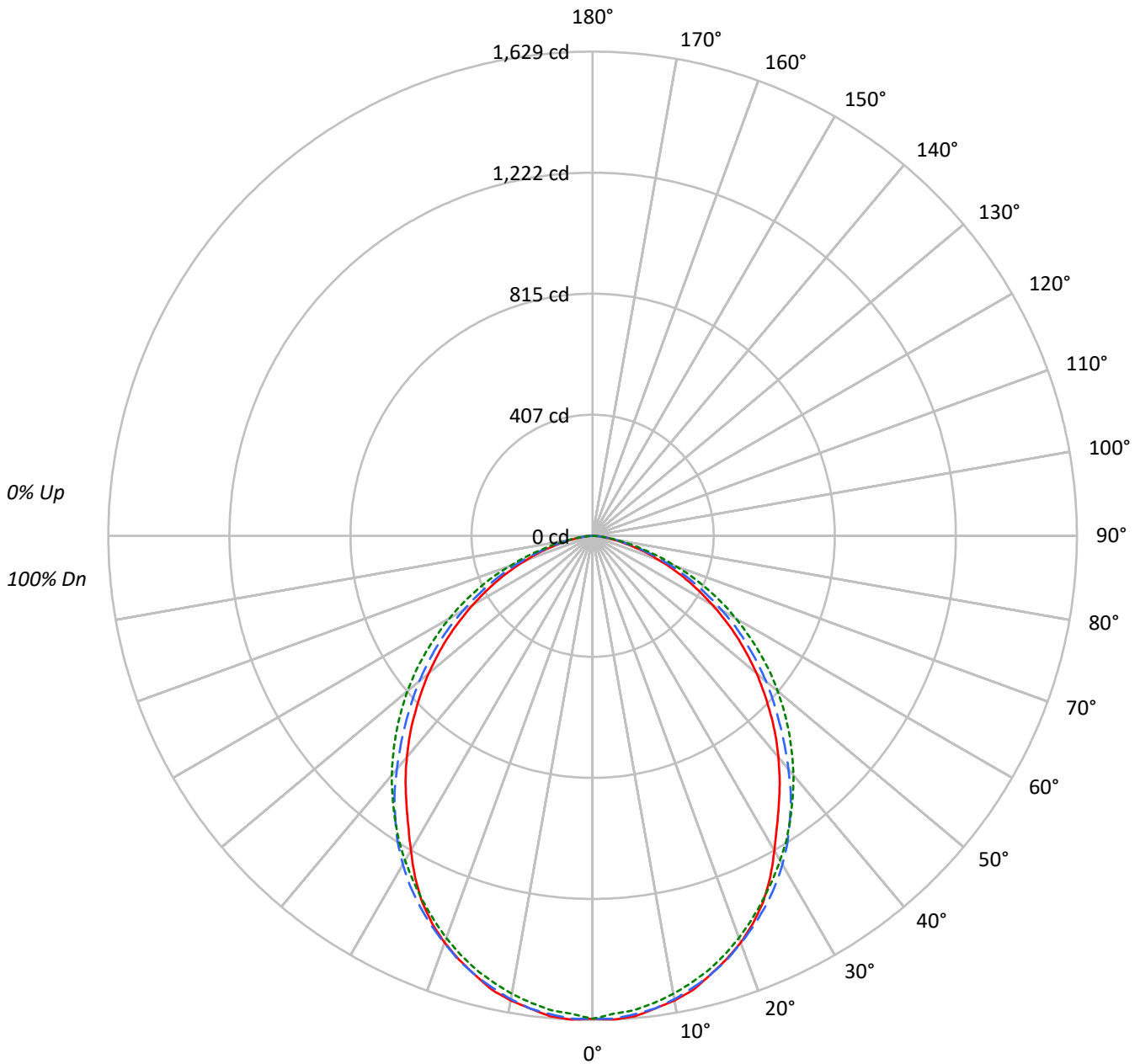
Lumens per Lamp: N/A
Luminaire Lumens: 3757.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4372	4372	4372
5°	4384	4366	4328
10°	4338	4326	4276
15°	4260	4260	4212
20°	4170	4176	4122
25°	4033	4083	4018
30°	3798	3968	3920
35°	3589	3804	3810
40°	3414	3598	3693
45°	3219	3380	3554
50°	3013	3185	3402
55°	2779	2964	3218
60°	2503	2704	2993
65°	2210	2404	2723
70°	1842	2048	2313
75°	1447	1635	1811
80°	1035	1151	1277
85°	673	673	636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.0	4.1
10°-20°	429.8	11.4
20°-30°	628.0	16.7
30°-40°	712.9	19.0
40°-50°	688.2	18.3
50°-60°	567.7	15.1
60°-70°	378.0	10.1
70°-80°	169.2	4.5
80°-90°	30.3	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°	1210.8	32.2
0°-40°	1923.6	51.2
0°-60°	3179.5	84.6
0°-90°	3757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1625	1625	1625	1625	1625	
5°	1623	1622	1616	1607	1602	154
15°	1529	1533	1529	1522	1512	431
25°	1358	1369	1375	1365	1353	622
35°	1092	1107	1158	1164	1160	684
45°	846	860	888	929	934	653
55°	592	602	632	667	686	529
65°	347	356	378	404	428	344
75°	139	147	157	165	174	152
85°	22	22	22	21	21	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1624.8	1624.8	1624.8	1624.8	1624.8
2.5°	1629.2	1629.8	1626.1	1616.1	1609.8
5°	1622.9	1622.3	1616.1	1607.3	1602.3
7.5°	1604.8	1606.1	1604.2	1591.7	1584.9
10°	1587.4	1588.0	1583.0	1573.0	1564.9
12.5°	1564.9	1564.3	1557.4	1552.4	1539.3
15°	1529.3	1533.0	1529.3	1522.4	1511.8
17.5°	1495.0	1495.0	1497.5	1485.6	1477.5
20°	1456.3	1458.1	1458.1	1448.8	1439.4
22.5°	1411.3	1416.9	1418.8	1408.8	1397.6
25°	1358.3	1368.9	1375.1	1365.1	1353.3
27.5°	1294.0	1310.2	1328.9	1321.4	1308.3
30°	1222.2	1245.9	1277.1	1270.9	1261.5
32.5°	1154.2	1177.9	1220.9	1218.4	1213.5
35°	1092.4	1107.3	1157.9	1164.1	1159.8
37.5°	1033.7	1047.4	1094.9	1109.2	1105.5
40°	971.9	986.9	1024.3	1049.9	1051.2
42.5°	910.7	925.1	955.7	992.5	992.5
45°	845.8	860.2	888.2	928.8	933.8
47.5°	782.1	797.1	824.6	865.1	873.3
50°	719.7	733.4	760.9	800.2	812.7
52.5°	654.8	669.8	696.6	732.8	750.9
55°	592.4	602.4	631.7	666.7	686.0
57.5°	527.5	536.8	569.9	599.9	619.8
60°	465.0	476.9	502.5	533.1	556.2
62.5°	405.1	417.6	439.4	466.3	492.5
65°	347.1	356.4	377.6	404.5	427.6
67.5°	290.9	299.0	320.2	338.9	363.3
70°	234.1	244.7	260.3	278.4	294.0
72.5°	188.5	192.9	206.0	219.1	235.3
75°	139.2	146.7	157.3	164.8	174.2
77.5°	99.9	104.2	110.5	116.7	125.5
80°	66.8	68.7	74.3	75.5	82.4
82.5°	40.6	41.8	43.1	43.7	46.2
85°	21.8	21.8	21.8	20.6	20.6
87.5°	12.5	12.5	10.6	8.7	6.2
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)