

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: P556260

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-93-86-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: P556260
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-35-UNV-93-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

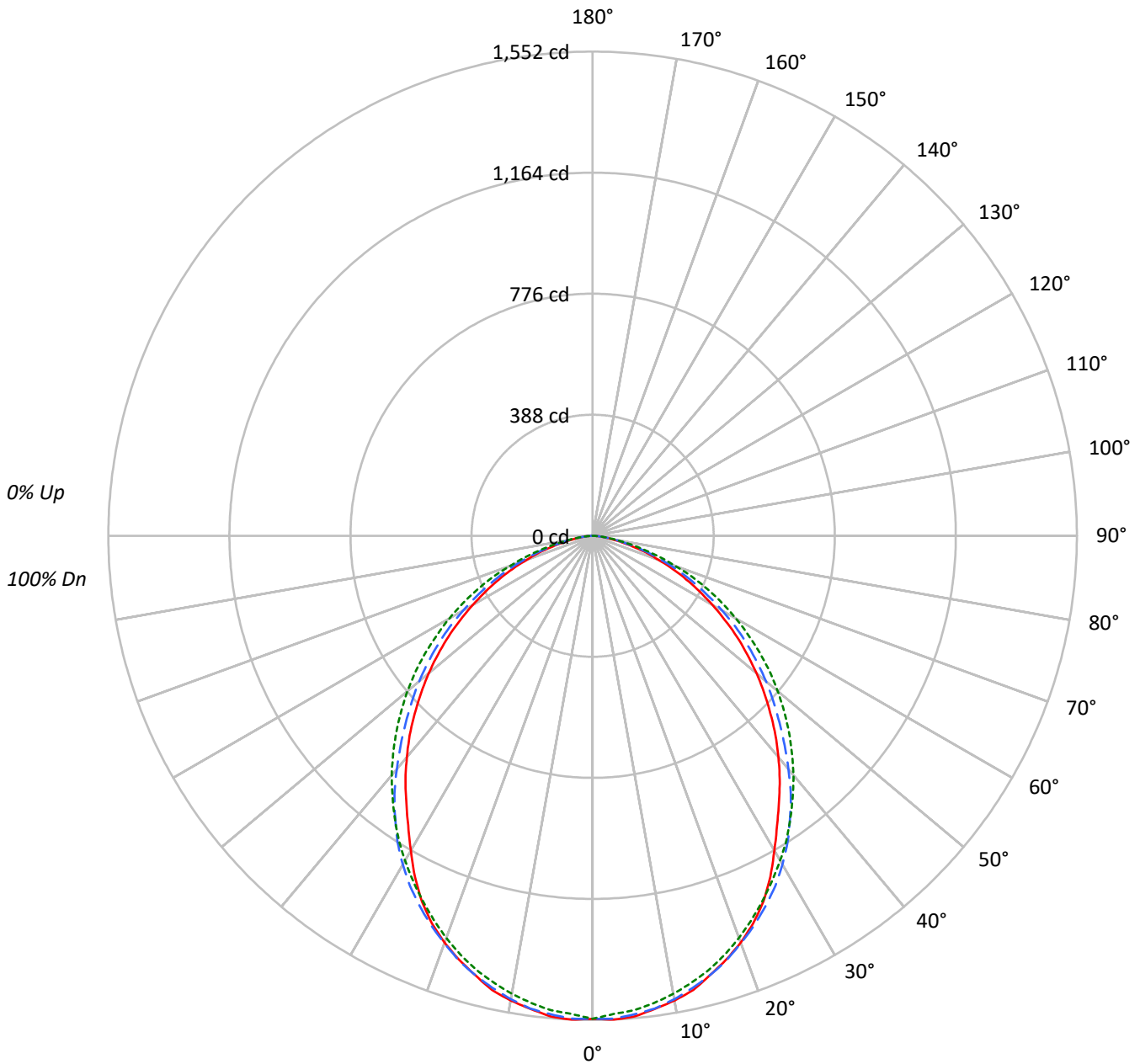
Lumens per Lamp: N/A
Luminaire Lumens: 3580.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4166	4166	4166
5°	4177	4160	4124
10°	4133	4122	4075
15°	4060	4060	4013
20°	3974	3979	3928
25°	3843	3890	3829
30°	3619	3782	3735
35°	3419	3624	3630
40°	3253	3429	3518
45°	3067	3221	3386
50°	2871	3036	3242
55°	2648	2824	3067
60°	2385	2577	2852
65°	2106	2292	2594
70°	1755	1951	2204
75°	1379	1559	1725
80°	986	1097	1216
85°	642	642	605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.8	4.1
10°-20°	409.5	11.4
20°-30°	598.4	16.7
30°-40°	679.3	19.0
40°-50°	655.8	18.3
50°-60°	540.9	15.1
60°-70°	360.2	10.1
70°-80°	161.2	4.5
80°-90°	28.8	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°	1153.7	32.2
0°-40°	1833.0	51.2
0°-60°	3029.7	84.6
0°-90°	3580.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1548	1548	1548	1548	1548	
5°	1546	1546	1540	1532	1527	146
15°	1457	1461	1457	1451	1441	411
25°	1294	1304	1310	1301	1290	593
35°	1041	1055	1103	1109	1105	652
45°	806	820	846	885	890	622
55°	564	574	602	635	654	504
65°	331	340	360	385	407	328
75°	133	140	150	157	166	145
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1548.3	1548.3	1548.3	1548.3	1548.3
2.5°	1552.4	1553.0	1549.4	1539.9	1534.0
5°	1546.5	1545.9	1539.9	1531.6	1526.8
7.5°	1529.2	1530.4	1528.6	1516.7	1510.2
10°	1512.6	1513.2	1508.4	1498.9	1491.2
12.5°	1491.2	1490.6	1484.0	1479.3	1466.8
15°	1457.3	1460.8	1457.3	1450.7	1440.6
17.5°	1424.5	1424.5	1426.9	1415.6	1407.9
20°	1387.7	1389.4	1389.4	1380.5	1371.6
22.5°	1344.8	1350.2	1352.0	1342.5	1331.8
25°	1294.3	1304.4	1310.3	1300.8	1289.5
27.5°	1233.0	1248.5	1266.3	1259.2	1246.7
30°	1164.6	1187.2	1217.0	1211.0	1202.1
32.5°	1099.8	1122.4	1163.4	1161.0	1156.3
35°	1040.9	1055.2	1103.3	1109.3	1105.1
37.5°	985.0	998.1	1043.3	1057.0	1053.4
40°	926.1	940.4	976.1	1000.4	1001.6
42.5°	867.8	881.5	910.6	945.7	945.7
45°	806.0	819.6	846.4	885.1	889.8
47.5°	745.3	759.6	785.7	824.4	832.1
50°	685.8	698.9	725.1	762.5	774.4
52.5°	623.9	638.2	663.8	698.3	715.5
55°	564.5	574.0	601.9	635.2	653.7
57.5°	502.6	511.5	543.0	571.6	590.6
60°	443.1	454.4	478.8	508.0	530.0
62.5°	386.0	397.9	418.7	444.3	469.3
65°	330.7	339.6	359.9	385.4	407.4
67.5°	277.2	284.9	305.1	323.0	346.2
70°	223.0	233.2	248.0	265.3	280.1
72.5°	179.6	183.8	196.3	208.8	224.2
75°	132.6	139.8	149.9	157.0	165.9
77.5°	95.2	99.3	105.3	111.2	119.6
80°	63.6	65.4	70.8	72.0	78.5
82.5°	38.7	39.9	41.0	41.6	44.0
85°	20.8	20.8	20.8	19.6	19.6
87.5°	11.9	11.9	10.1	8.3	5.9
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)