

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: P556859

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-80-94-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: P556859  
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-50-UNV-80-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

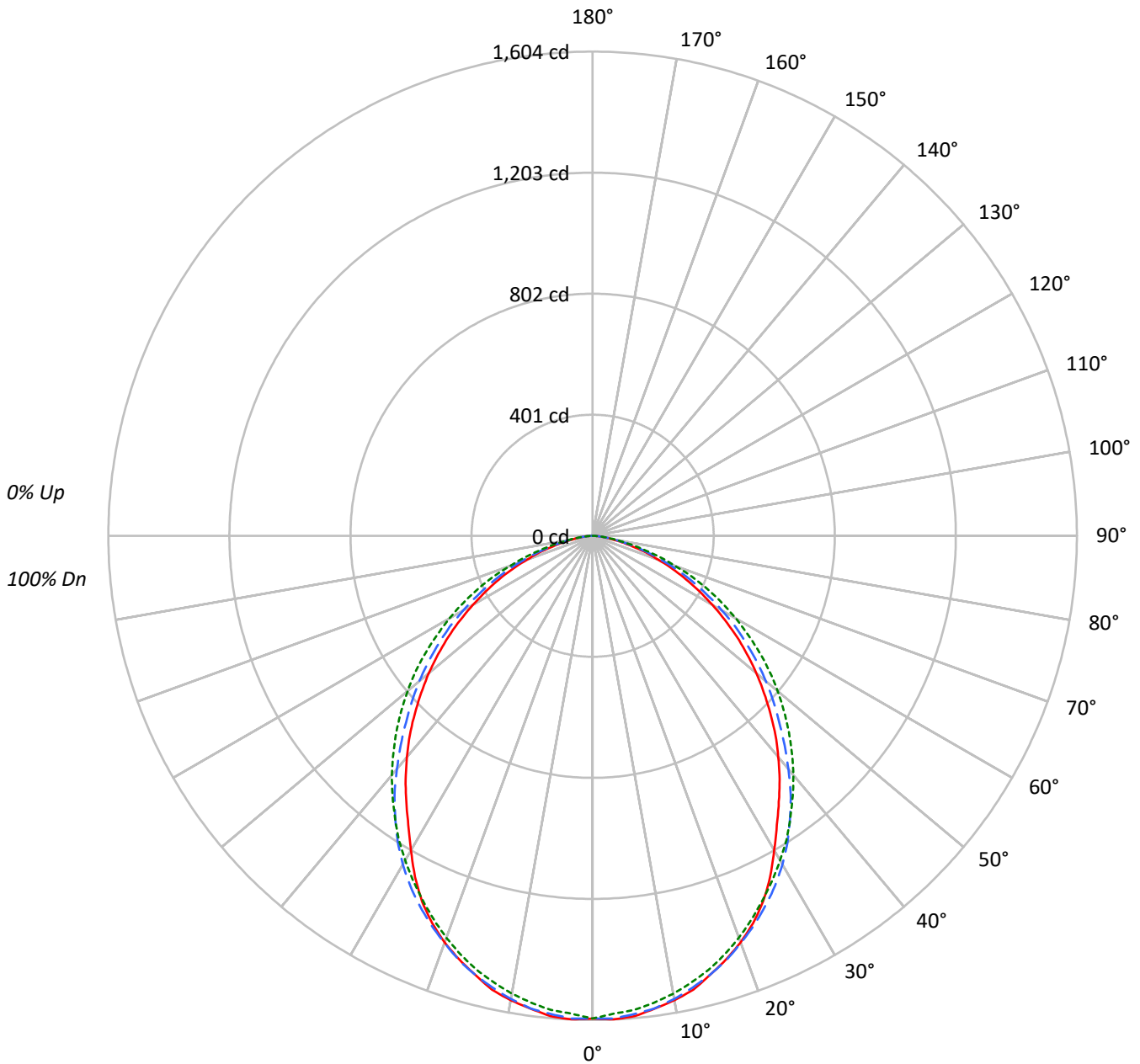
Lumens per Lamp: N/A  
Luminaire Lumens: 3698.0 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	4304	4304	4304
5°	4315	4297	4260
10°	4269	4257	4209
15°	4194	4194	4146
20°	4105	4110	4057
25°	3969	4019	3955
30°	3738	3906	3858
35°	3532	3744	3750
40°	3360	3542	3635
45°	3168	3327	3498
50°	2966	3136	3349
55°	2736	2917	3168
60°	2463	2662	2946
65°	2175	2367	2680
70°	1813	2016	2277
75°	1424	1609	1782
80°	1018	1133	1257
85°	664	664	627



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.6	4.1
10°-20°	423.0	11.4
20°-30°	618.2	16.7
30°-40°	701.7	19.0
40°-50°	677.4	18.3
50°-60°	558.8	15.1
60°-70°	372.1	10.1
70°-80°	166.5	4.5
80°-90°	29.8	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°	1191.8	32.2
0°-40°	1893.4	51.2
0°-60°	3129.6	84.6
0°-90°	3698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3698.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1599	1599	1599	1599	1599	
5°	1597	1597	1591	1582	1577	151
15°	1505	1509	1505	1498	1488	424
25°	1337	1347	1354	1344	1332	612
35°	1075	1090	1140	1146	1142	674
45°	832	847	874	914	919	642
55°	583	593	622	656	675	520
65°	342	351	372	398	421	339
75°	137	144	155	162	171	150
85°	22	22	22	20	20	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1599.3	1599.3	1599.3	1599.3	1599.3
2.5°	1603.6	1604.2	1600.5	1590.7	1584.5
5°	1597.4	1596.8	1590.7	1582.1	1577.2
7.5°	1579.6	1580.9	1579.0	1566.7	1560.0
10°	1562.4	1563.0	1558.1	1548.3	1540.3
12.5°	1540.3	1539.7	1532.9	1528.0	1515.1
15°	1505.3	1509.0	1505.3	1498.5	1488.1
17.5°	1471.5	1471.5	1474.0	1462.3	1454.3
20°	1433.4	1435.2	1435.2	1426.0	1416.8
22.5°	1389.2	1394.7	1396.5	1386.7	1375.6
25°	1336.9	1347.4	1353.5	1343.7	1332.0
27.5°	1273.7	1289.6	1308.1	1300.7	1287.8
30°	1203.0	1226.3	1257.1	1250.9	1241.7
32.5°	1136.0	1159.4	1201.8	1199.3	1194.4
35°	1075.2	1089.9	1139.7	1145.9	1141.6
37.5°	1017.5	1031.0	1077.7	1091.8	1088.1
40°	956.6	971.4	1008.2	1033.4	1034.7
42.5°	896.4	910.5	940.7	976.9	976.9
45°	832.5	846.6	874.3	914.2	919.1
47.5°	769.8	784.6	811.6	851.6	859.5
50°	708.4	721.9	749.0	787.7	800.0
52.5°	644.5	659.3	685.7	721.3	739.1
55°	583.1	592.9	621.8	656.2	675.2
57.5°	519.2	528.4	560.9	590.4	610.1
60°	457.7	469.4	494.6	524.7	547.4
62.5°	398.7	411.0	432.5	459.0	484.8
65°	341.6	350.8	371.7	398.1	420.9
67.5°	286.3	294.3	315.2	333.6	357.6
70°	230.4	240.8	256.2	274.0	289.4
72.5°	185.5	189.9	202.8	215.7	231.6
75°	137.0	144.4	154.8	162.2	171.4
77.5°	98.3	102.6	108.7	114.9	123.5
80°	65.7	67.6	73.1	74.3	81.1
82.5°	39.9	41.2	42.4	43.0	45.5
85°	21.5	21.5	21.5	20.3	20.3
87.5°	12.3	12.3	10.4	8.6	6.1
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)