

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: P556849

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-80-84-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: P556849  
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-80-84-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

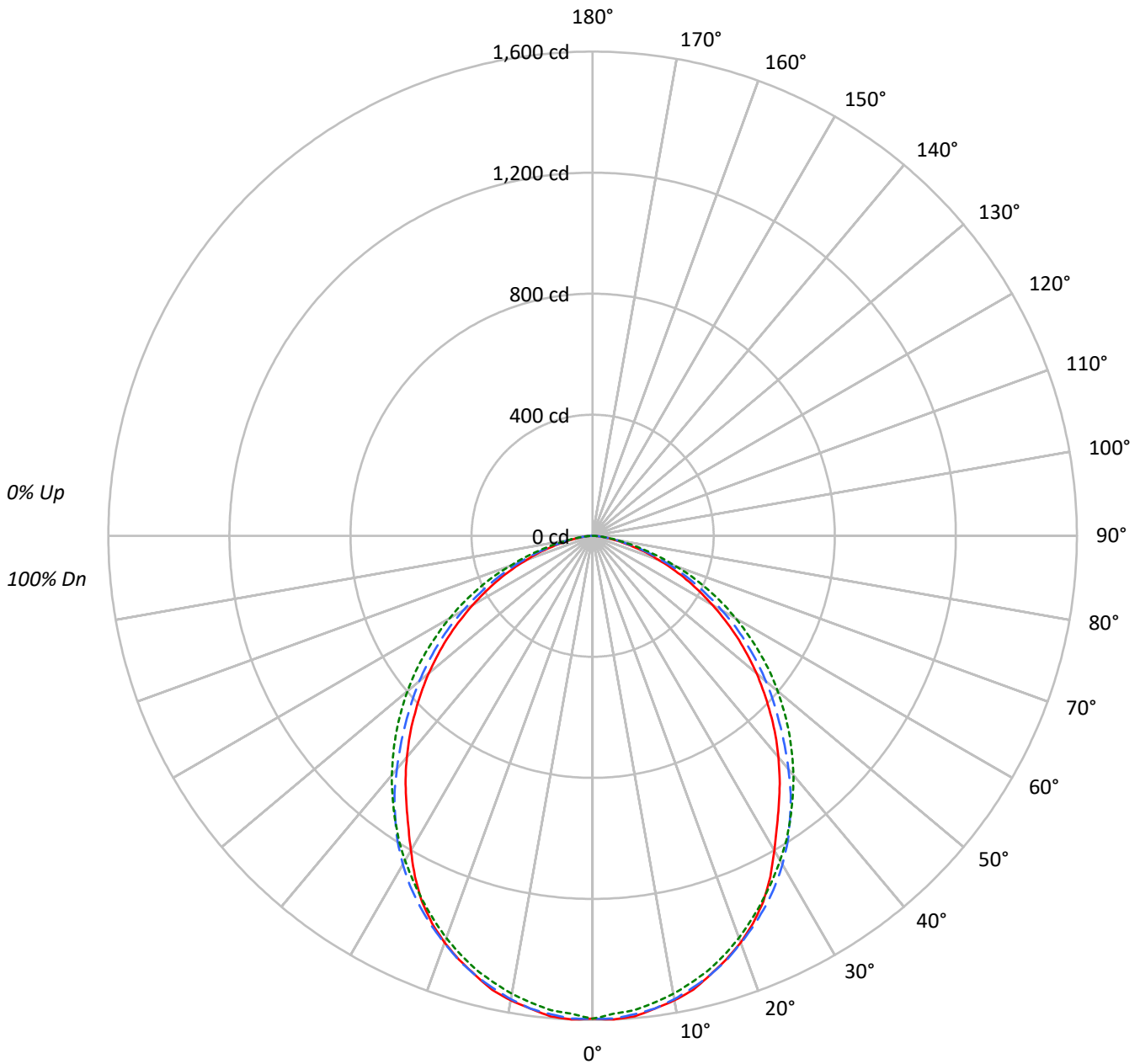
Lumens per Lamp: N/A  
Luminaire Lumens: 3690.0 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4294	4294	4294
5°	4306	4287	4251
10°	4260	4248	4200
15°	4184	4184	4137
20°	4096	4101	4048
25°	3961	4010	3946
30°	3730	3897	3850
35°	3525	3736	3742
40°	3353	3534	3627
45°	3161	3320	3491
50°	2959	3129	3342
55°	2730	2911	3161
60°	2458	2656	2940
65°	2171	2362	2674
70°	1809	2012	2272
75°	1421	1606	1778
80°	1017	1131	1254
85°	664	664	624



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.3	4.1
10°-20°	422.1	11.4
20°-30°	616.8	16.7
30°-40°	700.2	19.0
40°-50°	675.9	18.3
50°-60°	557.6	15.1
60°-70°	371.3	10.1
70°-80°	166.1	4.5
80°-90°	29.7	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°	1189.2	32.2
0°-40°	1889.3	51.2
0°-60°	3122.8	84.6
0°-90°	3690.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3690.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1596	1596	1596	1596	1596	
5°	1594	1593	1587	1579	1574	151
15°	1502	1506	1502	1495	1485	423
25°	1334	1344	1351	1341	1329	611
35°	1073	1088	1137	1143	1139	672
45°	831	845	872	912	917	641
55°	582	592	620	655	674	519
65°	341	350	371	397	420	338
75°	137	144	154	162	171	149
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°	1595.8	1595.8	1595.8	1595.8	1595.8
2.5°	1600.1	1600.7	1597.1	1587.2	1581.1
5°	1594.0	1593.4	1587.2	1578.7	1573.8
7.5°	1576.2	1577.4	1575.6	1563.3	1556.6
10°	1559.0	1559.7	1554.8	1544.9	1537.0
12.5°	1537.0	1536.4	1529.6	1524.7	1511.8
15°	1502.0	1505.7	1502.0	1495.3	1484.9
17.5°	1468.3	1468.3	1470.8	1459.1	1451.1
20°	1430.3	1432.1	1432.1	1422.9	1413.7
22.5°	1386.2	1391.7	1393.5	1383.7	1372.7
25°	1334.0	1344.5	1350.6	1340.8	1329.1
27.5°	1270.9	1286.8	1305.2	1297.9	1285.0
30°	1200.4	1223.7	1254.3	1248.2	1239.0
32.5°	1133.6	1156.9	1199.2	1196.7	1191.8
35°	1072.9	1087.6	1137.3	1143.4	1139.1
37.5°	1015.2	1028.7	1075.3	1089.4	1085.8
40°	954.6	969.3	1006.1	1031.2	1032.4
42.5°	894.5	908.6	938.6	974.8	974.8
45°	830.7	844.8	872.4	912.3	917.2
47.5°	768.2	782.9	809.9	849.7	857.7
50°	706.9	720.4	747.3	786.0	798.2
52.5°	643.1	657.8	684.2	719.7	737.5
55°	581.8	591.6	620.4	654.8	673.8
57.5°	518.0	527.2	559.7	589.2	608.8
60°	456.7	468.4	493.5	523.6	546.2
62.5°	397.9	410.1	431.6	458.0	483.7
65°	340.9	350.1	370.9	397.3	420.0
67.5°	285.7	293.7	314.5	332.9	356.8
70°	229.9	240.3	255.7	273.4	288.8
72.5°	185.1	189.4	202.3	215.2	231.1
75°	136.7	144.1	154.5	161.9	171.0
77.5°	98.1	102.4	108.5	114.6	123.2
80°	65.6	67.4	73.0	74.2	80.9
82.5°	39.8	41.1	42.3	42.9	45.4
85°	21.5	21.5	21.5	20.2	20.2
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)