

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: P555330

Luminaire Tested: **FUSL-12-2-LD4-2STD-50-UNV-81-85-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: P555330  
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-12-2-LD4-2STD-50-UNV-81-85-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

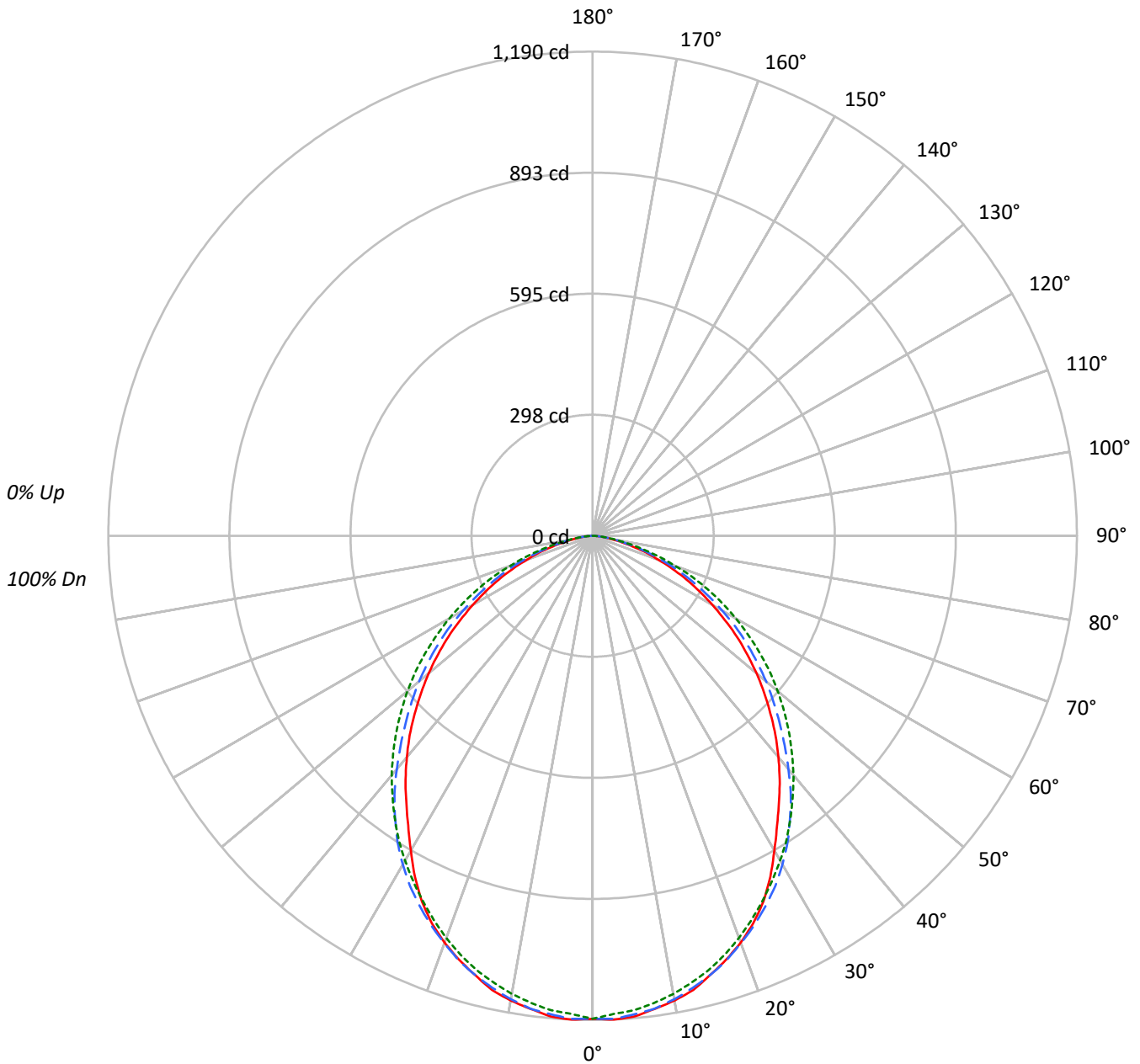
Lumens per Lamp: N/A  
Luminaire Lumens: 2745.0 lumens  
Efficiency: N/A  
Efficacy: 82.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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									
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°	6389	6389	6389
5°	6406	6379	6325
10°	6338	6321	6249
15°	6226	6226	6155
20°	6094	6102	6023
25°	5893	5966	5872
30°	5550	5799	5728
35°	5244	5558	5568
40°	4989	5258	5396
45°	4704	4940	5193
50°	4402	4654	4972
55°	4061	4330	4703
60°	3658	3951	4374
65°	3230	3514	3978
70°	2691	2993	3380
75°	2115	2389	2645
80°	1512	1683	1866
85°	988	988	932



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.8	4.1
10°-20°	314.0	11.4
20°-30°	458.9	16.7
30°-40°	520.9	19.0
40°-50°	502.8	18.3
50°-60°	414.8	15.1
60°-70°	276.2	10.1
70°-80°	123.6	4.5
80°-90°	22.1	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°	884.6	32.2
0°-40°	1405.5	51.2
0°-60°	2323.1	84.6
0°-90°	2745.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2745.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1186	1185	1181	1174	1171	112
15°	1117	1120	1117	1112	1105	315
25°	992	1000	1005	997	989	454
35°	798	809	846	851	847	500
45°	618	628	649	679	682	477
55°	433	440	462	487	501	386
65°	254	260	276	296	312	251
75°	102	107	115	120	127	111
85°	16	16	16	15	15	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1187.1	<i>1187.1</i>	1187.1	1187.1	1187.1
2.5°	<i>1190.3</i>	<i>1190.8</i>	<i>1188.1</i>	<i>1180.8</i>	<i>1176.2</i>
5°	1185.8	<i>1185.3</i>	1180.8	1174.4	1170.7
7.5°	1172.5	<i>1173.5</i>	1172.1	1163.0	1158.0
10°	1159.8	<i>1160.2</i>	1156.6	1149.3	1143.4
12.5°	1143.4	<i>1142.9</i>	1137.9	1134.2	1124.7
15°	1117.4	<i>1120.1</i>	1117.4	1112.3	1104.6
17.5°	1092.3	<i>1092.3</i>	1094.1	1085.4	1079.5
20°	1064.0	<i>1065.4</i>	1065.4	1058.5	1051.7
22.5°	1031.2	<i>1035.3</i>	1036.6	1029.3	1021.1
25°	992.4	<i>1000.2</i>	1004.7	997.4	988.8
27.5°	945.4	<i>957.3</i>	971.0	965.5	955.9
30°	893.0	<i>910.3</i>	933.1	928.6	921.7
32.5°	843.3	<i>860.6</i>	892.1	890.2	886.6
35°	798.1	<i>809.1</i>	846.0	850.6	847.4
37.5°	755.2	<i>765.3</i>	799.9	810.4	807.7
40°	710.1	<i>721.0</i>	748.4	767.1	768.0
42.5°	665.4	<i>675.9</i>	698.2	725.1	725.1
45°	618.0	<i>628.5</i>	649.0	678.6	682.3
47.5°	571.5	<i>582.4</i>	602.5	632.1	638.0
50°	525.8	<i>535.9</i>	555.9	584.7	593.8
52.5°	478.4	<i>489.4</i>	509.0	535.4	548.6
55°	432.8	<i>440.1</i>	461.5	487.1	501.2
57.5°	385.4	<i>392.2</i>	416.4	438.3	452.9
60°	339.8	<i>348.4</i>	367.1	389.5	406.4
62.5°	296.0	<i>305.1</i>	321.1	340.7	359.8
65°	253.6	<i>260.4</i>	275.9	295.5	312.4
67.5°	212.5	<i>218.5</i>	234.0	247.6	265.4
70°	171.0	<i>178.8</i>	190.2	203.4	214.8
72.5°	137.7	<i>140.9</i>	150.5	160.1	171.9
75°	101.7	<i>107.2</i>	114.9	120.4	127.2
77.5°	73.0	<i>76.2</i>	80.7	85.3	91.7
80°	48.8	<i>50.2</i>	54.3	55.2	60.2
82.5°	29.6	<i>30.6</i>	31.5	31.9	33.7
85°	16.0	<i>16.0</i>	16.0	15.1	15.1
87.5°	9.1	<i>9.1</i>	7.8	6.4	4.6
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)