

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: P556153

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-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: P556153  
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-30-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 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

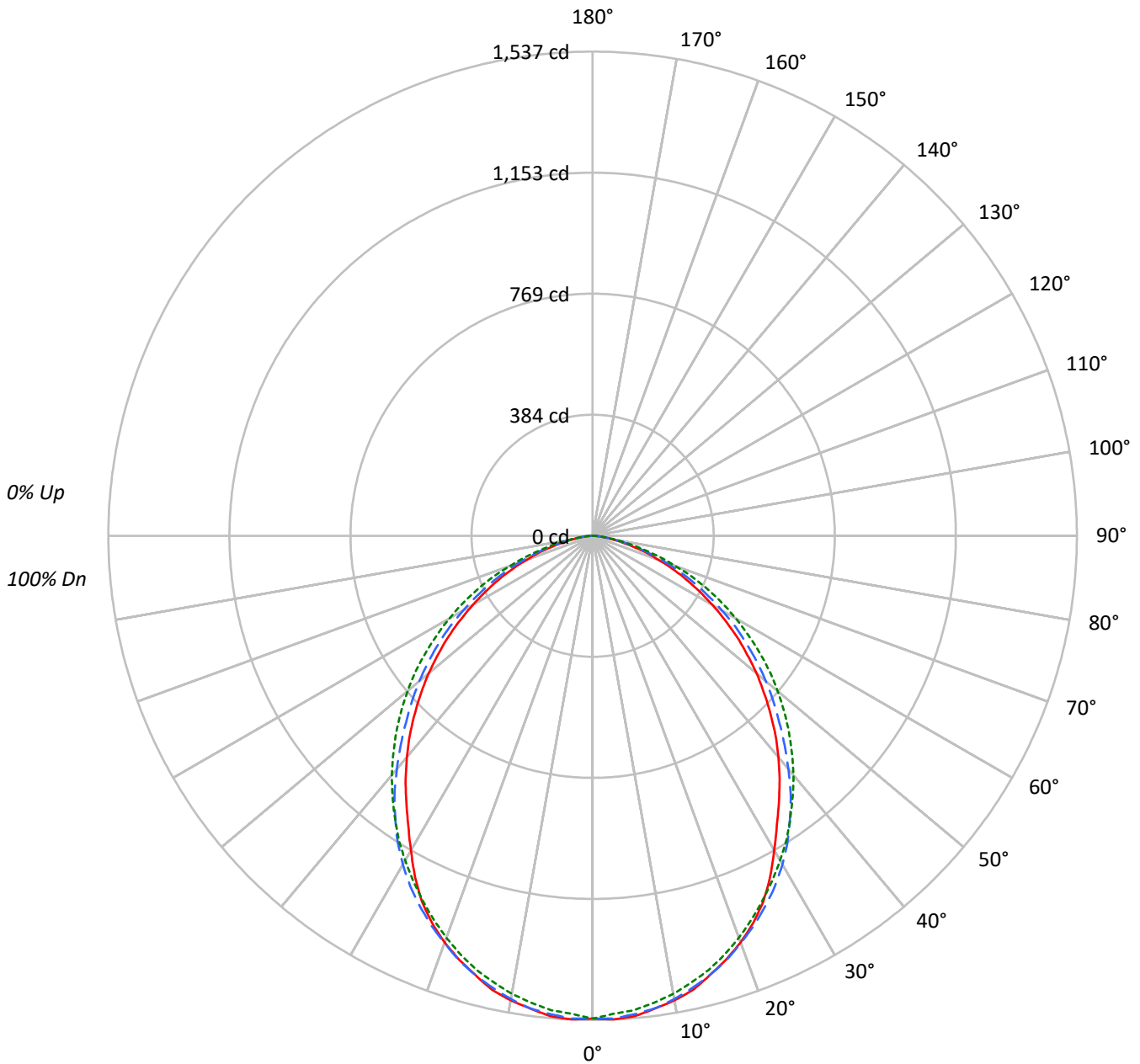
Lumens per Lamp: N/A  
Luminaire Lumens: 3544.0 lumens  
Efficiency: N/A  
Efficacy: 82.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (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°	4124	4124	4124
5°	4135	4118	4083
10°	4092	4080	4034
15°	4019	4019	3973
20°	3934	3939	3888
25°	3804	3852	3790
30°	3582	3743	3698
35°	3385	3588	3594
40°	3221	3394	3483
45°	3036	3189	3352
50°	2842	3005	3209
55°	2622	2796	3036
60°	2361	2551	2823
65°	2085	2268	2568
70°	1737	1932	2182
75°	1365	1543	1708
80°	976	1086	1204
85°	636	636	599



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.3	4.1
10°-20°	405.4	11.4
20°-30°	592.4	16.7
30°-40°	672.5	19.0
40°-50°	649.2	18.3
50°-60°	535.5	15.1
60°-70°	356.6	10.1
70°-80°	159.6	4.5
80°-90°	28.5	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°	1142.1	32.2
0°-40°	1814.6	51.2
0°-60°	2999.3	84.6
0°-90°	3544.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3544.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1533	1533	1533	1533	1533	
5°	1531	1530	1524	1516	1512	145
15°	1443	1446	1443	1436	1426	407
25°	1281	1291	1297	1288	1277	587
35°	1030	1045	1092	1098	1094	646
45°	798	811	838	876	881	616
55°	559	568	596	629	647	499
65°	327	336	356	382	403	325
75°	131	138	148	155	164	144
85°	21	21	21	19	19	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1532.7	1532.7	1532.7	1532.7	1532.7
2.5°	1536.8	1537.4	1533.9	1524.4	1518.6
5°	1530.9	1530.3	1524.4	1516.2	1511.5
7.5°	1513.8	1515.0	1513.3	1501.5	1495.0
10°	1497.4	1497.9	1493.2	1483.8	1476.2
12.5°	1476.2	1475.6	1469.1	1464.4	1452.0
15°	1442.6	1446.1	1442.6	1436.1	1426.1
17.5°	1410.2	1410.2	1412.6	1401.4	1393.7
20°	1373.7	1375.5	1375.5	1366.6	1357.8
22.5°	1331.3	1336.6	1338.4	1329.0	1318.4
25°	1281.3	1291.3	1297.2	1287.7	1276.6
27.5°	1220.6	1235.9	1253.6	1246.5	1234.2
30°	1152.9	1175.3	1204.7	1198.8	1190.0
32.5°	1088.7	1111.1	1151.7	1149.4	1144.7
35°	1030.4	1044.6	1092.3	1098.1	1094.0
37.5°	975.1	988.0	1032.8	1046.3	1042.8
40°	916.8	930.9	966.2	990.4	991.6
42.5°	859.1	872.6	901.5	936.2	936.2
45°	797.8	811.4	837.9	876.2	880.9
47.5°	737.8	751.9	777.8	816.1	823.8
50°	678.9	691.9	717.8	754.9	766.6
52.5°	617.7	631.8	657.1	691.3	708.3
55°	558.8	568.2	595.9	628.9	647.1
57.5°	497.5	506.4	537.6	565.9	584.7
60°	438.7	449.9	474.0	502.8	524.6
62.5°	382.1	393.9	414.5	439.8	464.6
65°	327.4	336.2	356.2	381.6	403.3
67.5°	274.4	282.0	302.1	319.7	342.7
70°	220.8	230.8	245.5	262.6	277.3
72.5°	177.8	181.9	194.3	206.7	222.0
75°	131.3	138.4	148.4	155.4	164.3
77.5°	94.2	98.3	104.2	110.1	118.4
80°	63.0	64.8	70.1	71.2	77.7
82.5°	38.3	39.5	40.6	41.2	43.6
85°	20.6	20.6	20.6	19.4	19.4
87.5°	11.8	11.8	10.0	8.2	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)