

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: P556192

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-93-84-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: P556192
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-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

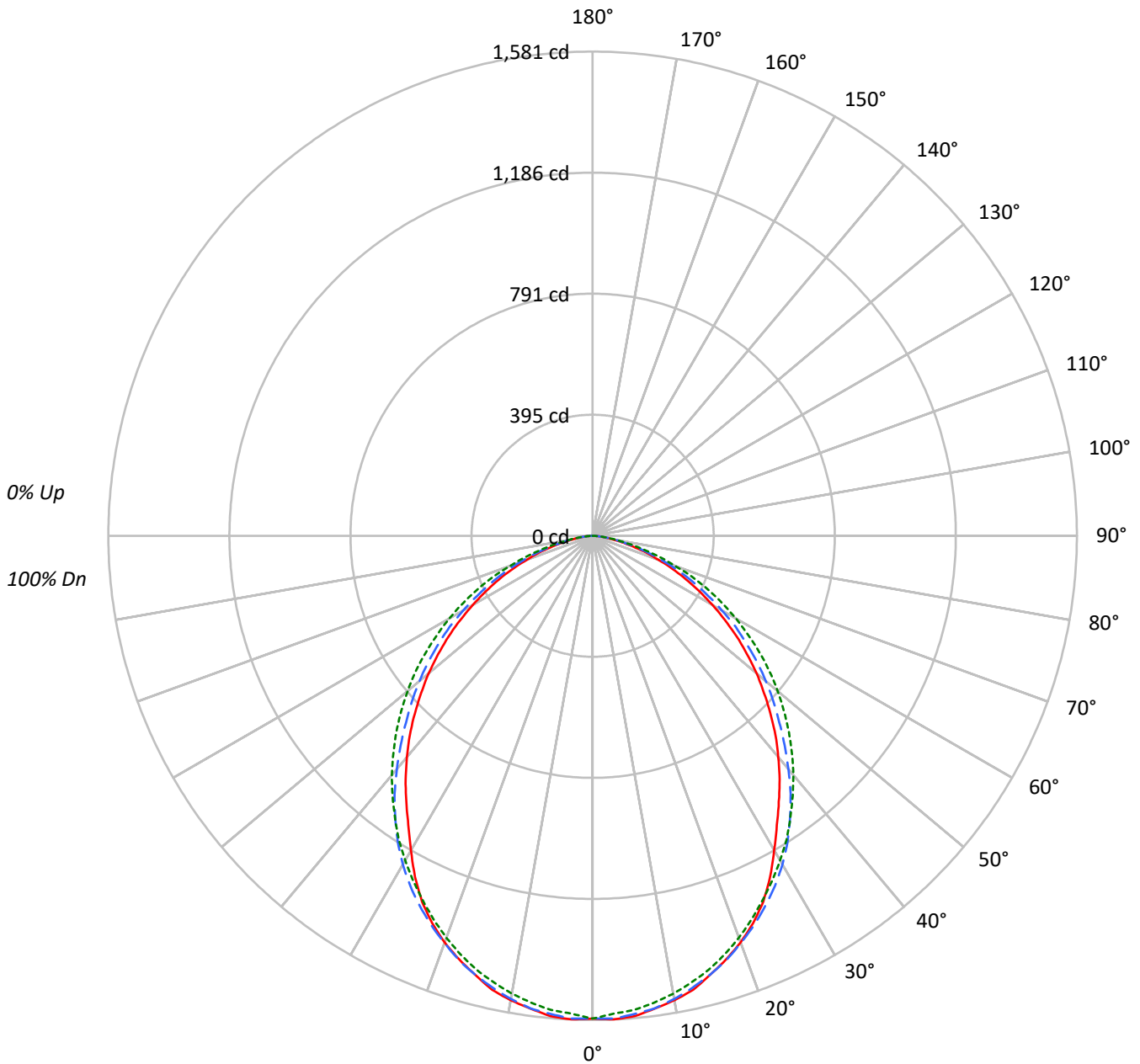
Lumens per Lamp: N/A
Luminaire Lumens: 3645.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4242	4242	4242
5°	4253	4235	4199
10°	4208	4197	4148
15°	4133	4133	4086
20°	4046	4051	3999
25°	3913	3961	3898
30°	3685	3850	3803
35°	3482	3690	3696
40°	3312	3491	3582
45°	3123	3280	3448
50°	2923	3090	3301
55°	2696	2875	3123
60°	2428	2624	2904
65°	2144	2333	2641
70°	1787	1987	2244
75°	1404	1587	1757
80°	1004	1117	1238
85°	655	655	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	4.1
10°-20°	417.0	11.4
20°-30°	609.3	16.7
30°-40°	691.6	19.0
40°-50°	667.7	18.3
50°-60°	550.8	15.1
60°-70°	366.8	10.1
70°-80°	164.1	4.5
80°-90°	29.4	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°	1174.7	32.2
0°-40°	1866.3	51.2
0°-60°	3084.7	84.6
0°-90°	3645.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3645.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1576	1576	1576	1576	1576	
5°	1575	1574	1568	1559	1555	149
15°	1484	1487	1484	1477	1467	418
25°	1318	1328	1334	1324	1313	603
35°	1060	1074	1123	1129	1125	664
45°	821	834	862	901	906	633
55°	575	584	613	647	666	513
65°	337	346	366	392	415	334
75°	135	142	153	160	169	148
85°	21	21	21	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1576.4	1576.4	1576.4	1576.4	1576.4
2.5°	1580.6	1581.2	1577.6	1567.9	1561.8
5°	1574.6	1573.9	1567.9	1559.4	1554.6
7.5°	1557.0	1558.2	1556.4	1544.3	1537.6
10°	1540.0	1540.6	1535.8	1526.1	1518.2
12.5°	1518.2	1517.6	1511.0	1506.1	1493.4
15°	1483.7	1487.3	1483.7	1477.1	1466.8
17.5°	1450.4	1450.4	1452.8	1441.3	1433.4
20°	1412.9	1414.7	1414.7	1405.6	1396.5
22.5°	1369.3	1374.7	1376.5	1366.8	1355.9
25°	1317.8	1328.1	1334.1	1324.4	1312.9
27.5°	1255.4	1271.1	1289.3	1282.0	1269.3
30°	1185.8	1208.8	1239.1	1233.0	1223.9
32.5°	1119.7	1142.8	1184.5	1182.1	1177.3
35°	1059.8	1074.3	1123.4	1129.4	1125.2
37.5°	1002.9	1016.2	1062.2	1076.1	1072.5
40°	942.9	957.4	993.8	1018.6	1019.8
42.5°	883.6	897.5	927.2	962.9	962.9
45°	820.6	834.5	861.8	901.1	906.0
47.5°	758.8	773.3	800.0	839.4	847.2
50°	698.3	711.6	738.2	776.4	788.5
52.5°	635.3	649.8	675.8	711.0	728.5
55°	574.7	584.4	612.9	646.8	665.6
57.5°	511.7	520.8	552.9	582.0	601.4
60°	451.2	462.7	487.5	517.2	539.6
62.5°	393.0	405.1	426.3	452.4	477.8
65°	336.7	345.8	366.4	392.4	414.8
67.5°	282.2	290.1	310.7	328.8	352.5
70°	227.1	237.4	252.5	270.1	285.2
72.5°	182.9	187.1	199.8	212.6	228.3
75°	135.0	142.3	152.6	159.9	169.0
77.5°	96.9	101.1	107.2	113.2	121.7
80°	64.8	66.6	72.1	73.3	79.9
82.5°	39.4	40.6	41.8	42.4	44.8
85°	21.2	21.2	21.2	20.0	20.0
87.5°	12.1	12.1	10.3	8.5	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)