

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: P557256

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-81-88-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: P557256
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-LD4-2LO-35-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

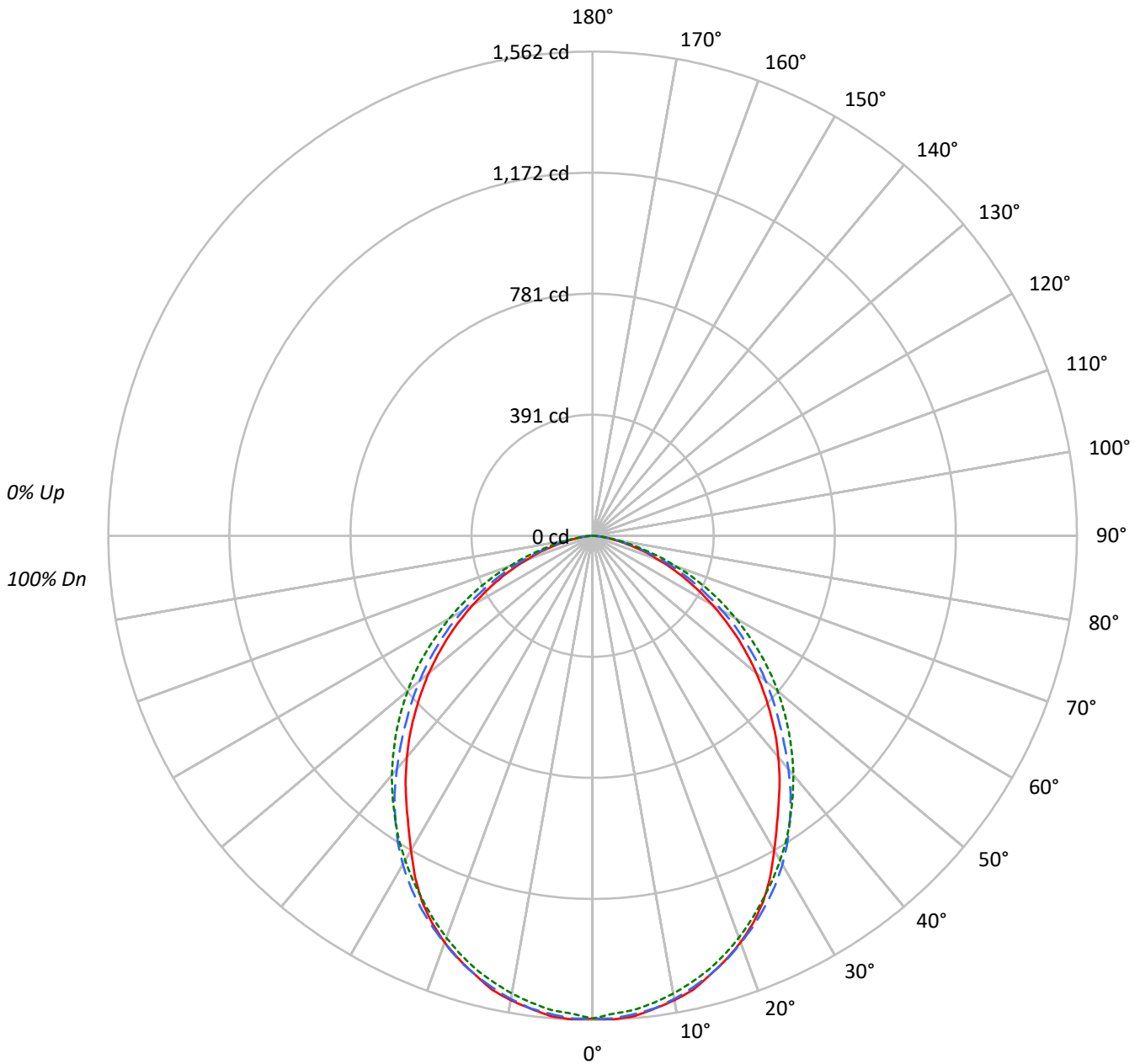
Lumens per Lamp: N/A
Luminaire Lumens: 3601.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	4191	4191	4191
5°	4202	4184	4149
10°	4157	4146	4098
15°	4084	4084	4037
20°	3997	4002	3951
25°	3866	3913	3851
30°	3640	3804	3757
35°	3439	3646	3652
40°	3272	3449	3539
45°	3085	3240	3406
50°	2888	3053	3261
55°	2664	2841	3085
60°	2399	2592	2869
65°	2118	2305	2609
70°	1766	1963	2217
75°	1387	1568	1735
80°	992	1103	1224
85°	645	645	608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.6	4.1
10°-20°	411.9	11.4
20°-30°	602.0	16.7
30°-40°	683.3	19.0
40°-50°	659.6	18.3
50°-60°	544.1	15.1
60°-70°	362.3	10.1
70°-80°	162.1	4.5
80°-90°	29.0	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°	1160.5	32.2
0°-40°	1843.8	51.2
0°-60°	3047.5	84.6
0°-90°	3601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3601.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1557	1557	1557	1557	1557	
5°	1556	1555	1549	1541	1536	147
15°	1466	1469	1466	1459	1449	413
25°	1302	1312	1318	1308	1297	596
35°	1047	1061	1110	1116	1112	656
45°	811	824	851	890	895	625
55°	568	577	606	639	658	507
65°	333	342	362	388	410	330
75°	133	141	151	158	167	146
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1557.3	1557.3	1557.3	1557.3	1557.3
2.5°	1561.5	1562.1	1558.5	1549.0	1543.0
5°	1555.5	1554.9	1549.0	1540.6	1535.8
7.5°	1538.2	1539.4	1537.6	1525.6	1519.0
10°	1521.4	1522.0	1517.3	1507.7	1499.9
12.5°	1499.9	1499.3	1492.7	1487.9	1475.4
15°	1465.8	1469.4	1465.8	1459.2	1449.0
17.5°	1432.9	1432.9	1435.3	1423.9	1416.1
20°	1395.8	1397.6	1397.6	1388.6	1379.6
22.5°	1352.7	1358.1	1359.9	1350.3	1339.6
25°	1301.9	1312.0	1318.0	1308.5	1297.1
27.5°	1240.2	1255.8	1273.8	1266.6	1254.0
30°	1171.4	1194.2	1224.1	1218.1	1209.1
32.5°	1106.2	1129.0	1170.2	1167.9	1163.1
35°	1047.0	1061.4	1109.8	1115.8	1111.6
37.5°	990.8	1003.9	1049.4	1063.2	1059.6
40°	931.5	945.9	981.8	1006.3	1007.5
42.5°	872.9	886.7	916.0	951.3	951.3
45°	810.7	824.4	851.4	890.3	895.0
47.5°	749.7	764.0	790.3	829.2	837.0
50°	689.8	703.0	729.3	767.0	779.0
52.5°	627.6	642.0	667.7	702.4	719.7
55°	567.8	577.3	605.5	639.0	657.5
57.5°	505.6	514.5	546.2	575.0	594.1
60°	445.7	457.1	481.6	510.9	533.1
62.5°	388.3	400.3	421.2	446.9	472.0
65°	332.6	341.6	362.0	387.7	409.8
67.5°	278.8	286.6	306.9	324.9	348.2
70°	224.4	234.5	249.5	266.8	281.8
72.5°	180.7	184.9	197.4	210.0	225.6
75°	133.4	140.6	150.8	157.9	166.9
77.5°	95.7	99.9	105.9	111.9	120.3
80°	64.0	65.8	71.2	72.4	79.0
82.5°	38.9	40.1	41.3	41.9	44.3
85°	20.9	20.9	20.9	19.7	19.7
87.5°	12.0	12.0	10.2	8.4	6.0
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)