

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: P557095

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-93-87-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: P557095
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-LD4-2HI-40-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

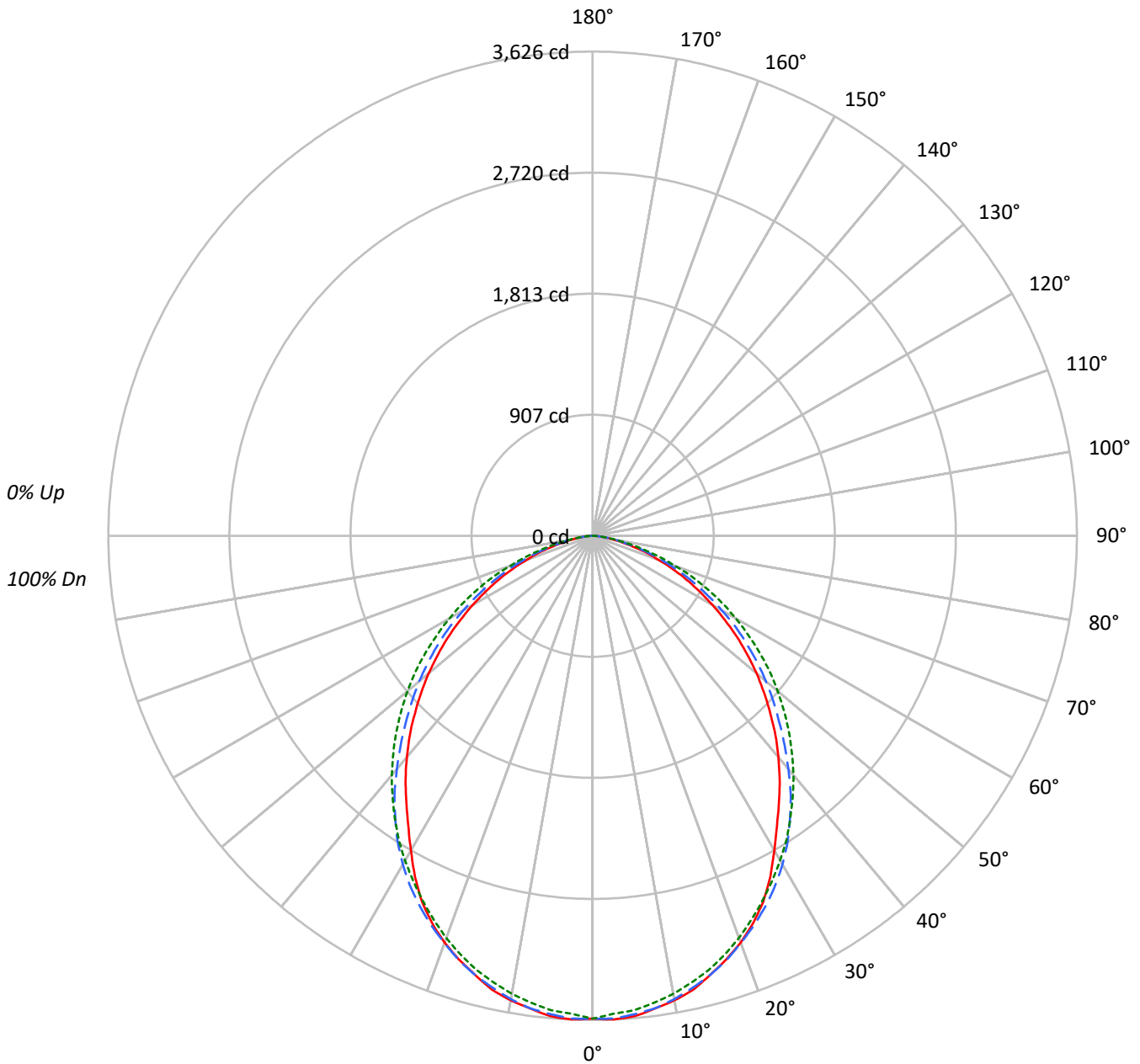
Lumens per Lamp: N/A
Luminaire Lumens: 8362.0 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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

TEST NUMBER: P557095

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P557095

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-87-EDD

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°	9731	9731	9731
5°	9757	9716	9633
10°	9654	9627	9517
15°	9483	9483	9374
20°	9282	9294	9174
25°	8976	9087	8943
30°	8453	8832	8725
35°	7987	8466	8480
40°	7599	8009	8219
45°	7164	7524	7910
50°	6706	7090	7573
55°	6185	6596	7163
60°	5570	6019	6662
65°	4919	5352	6060
70°	4099	4558	5149
75°	3221	3640	4030
80°	2304	2562	2842
85°	1501	1501	1414



TEST NUMBER: P557095

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.5	4.1
10°-20°	956.5	11.4
20°-30°	1397.8	16.7
30°-40°	1586.7	19.0
40°-50°	1531.7	18.3
50°-60°	1263.5	15.1
60°-70°	841.4	10.1
70°-80°	376.5	4.5
80°-90°	67.4	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°	2694.8	32.2
0°-40°	4281.5	51.2
0°-60°	7076.7	84.6
0°-90°	8362.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8362.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3616	3616	3616	3616	3616	
5°	3612	3611	3597	3577	3566	342
15°	3404	3412	3404	3388	3365	960
25°	3023	3047	3061	3038	3012	1384
35°	2431	2465	2577	2591	2581	1523
45°	1882	1914	1977	2067	2078	1452
55°	1318	1341	1406	1484	1527	1177
65°	772	793	840	900	952	766
75°	310	326	350	367	388	339
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



TEST NUMBER: P557095

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3616.3	3616.3	3616.3	3616.3	3616.3
2.5°	3626.1	3627.5	3619.1	3596.9	3583.0
5°	3612.2	3610.8	3596.9	3577.4	3566.3
7.5°	3571.9	3574.7	3570.5	3542.7	3527.4
10°	3533.0	3534.4	3523.3	3501.0	3483.0
12.5°	3483.0	3481.6	3466.3	3455.2	3426.0
15°	3403.8	3412.1	3403.8	3388.5	3364.9
17.5°	3327.4	3327.4	3332.9	3306.5	3288.5
20°	3241.2	3245.4	3245.4	3224.6	3203.7
22.5°	3141.2	3153.7	3157.9	3135.7	3110.6
25°	3023.1	3046.7	3060.6	3038.4	3012.0
27.5°	2880.0	2916.1	2957.8	2941.1	2912.0
30°	2720.3	2773.0	2842.5	2828.6	2807.8
32.5°	2568.8	2621.6	2717.5	2711.9	2700.8
35°	2431.3	2464.6	2577.2	2591.0	2581.3
37.5°	2300.7	2331.2	2436.8	2468.8	2460.5
40°	2163.1	2196.5	2279.8	2336.8	2339.6
42.5°	2027.0	2058.9	2127.0	2209.0	2209.0
45°	1882.5	1914.5	1977.0	2067.3	2078.4
47.5°	1740.8	1774.1	1835.3	1925.6	1943.6
50°	1601.9	1632.4	1693.6	1781.1	1808.9
52.5°	1457.4	1490.7	1550.5	1631.0	1671.3
55°	1318.4	1340.7	1406.0	1483.8	1526.8
57.5°	1174.0	1194.8	1268.4	1335.1	1379.6
60°	1035.0	1061.4	1118.4	1186.5	1237.9
62.5°	901.7	929.4	978.1	1037.8	1096.2
65°	772.5	793.3	840.5	900.3	951.7
67.5°	647.4	665.5	712.7	754.4	808.6
70°	521.0	544.6	579.3	619.6	654.4
72.5°	419.6	429.3	458.5	487.6	523.8
75°	309.8	326.5	350.1	366.8	387.6
77.5°	222.3	232.0	245.9	259.8	279.2
80°	148.7	152.8	165.3	168.1	183.4
82.5°	90.3	93.1	95.9	97.3	102.8
85°	48.6	48.6	48.6	45.8	45.8
87.5°	27.8	27.8	23.6	19.5	13.9
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)