

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: P556356

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-81-86-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: P556356
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-50-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

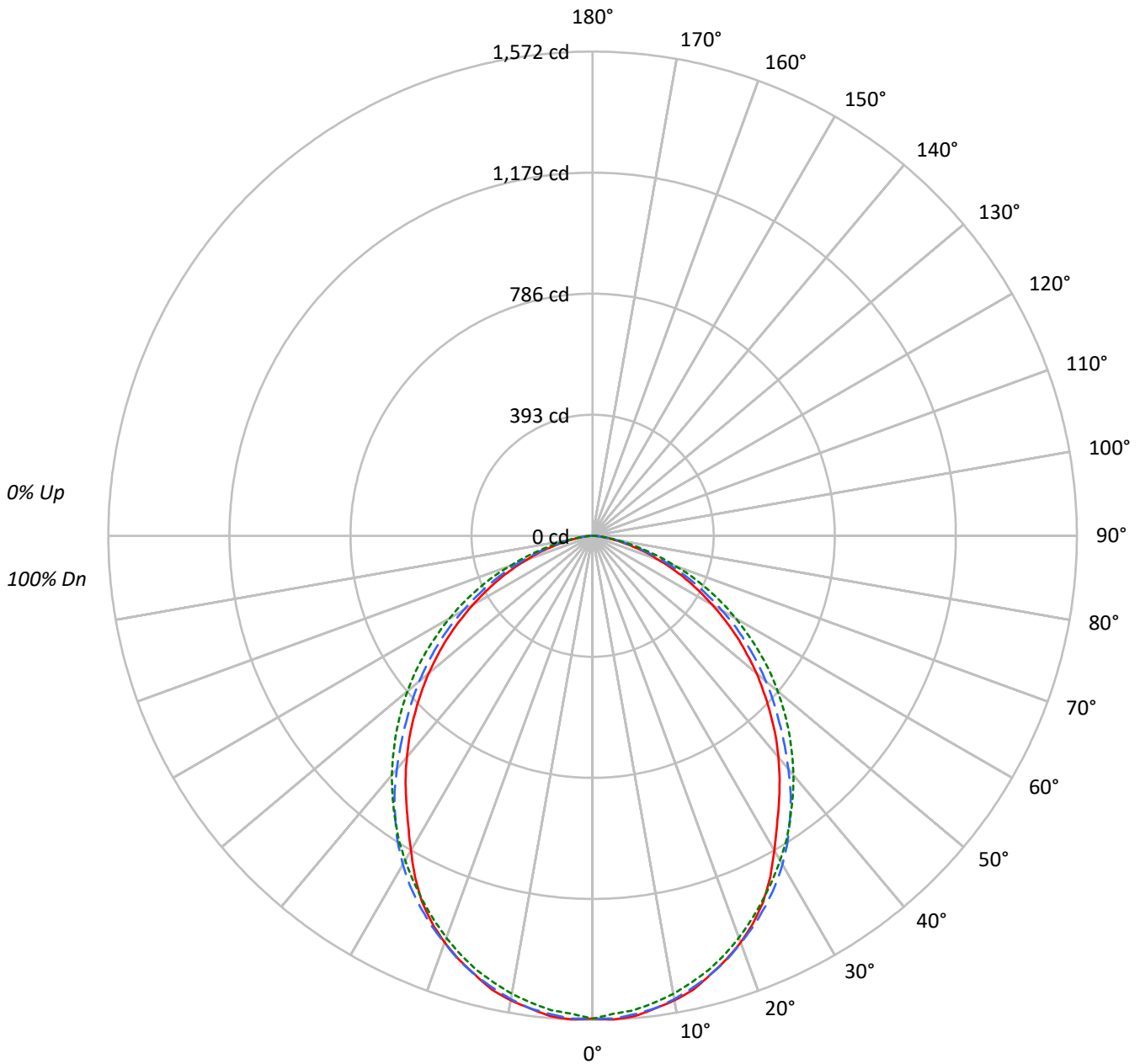
Lumens per Lamp: N/A
Luminaire Lumens: 3625.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4219	4219	4219
5°	4230	4212	4176
10°	4185	4174	4126
15°	4111	4111	4064
20°	4024	4029	3977
25°	3891	3939	3877
30°	3664	3829	3782
35°	3462	3670	3676
40°	3294	3472	3563
45°	3106	3261	3429
50°	2907	3074	3283
55°	2682	2860	3105
60°	2415	2609	2888
65°	2132	2320	2627
70°	1777	1976	2232
75°	1396	1578	1747
80°	998	1111	1232
85°	651	651	614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.6	4.1
10°-20°	414.7	11.4
20°-30°	606.0	16.7
30°-40°	687.8	19.0
40°-50°	664.0	18.3
50°-60°	547.8	15.1
60°-70°	364.8	10.1
70°-80°	163.2	4.5
80°-90°	29.2	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°	1168.2	32.2
0°-40°	1856.1	51.2
0°-60°	3067.8	84.6
0°-90°	3625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3625.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1568	1568	1568	1568	1568	
5°	1566	1565	1559	1551	1546	148
15°	1476	1479	1476	1469	1459	416
25°	1310	1321	1327	1317	1306	600
35°	1054	1068	1117	1123	1119	660
45°	816	830	857	896	901	630
55°	572	581	610	643	662	510
65°	335	344	364	390	413	332
75°	134	142	152	159	168	147
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°	1567.7	1567.7	1567.7	1567.7	1567.7
2.5°	1571.9	1572.5	1568.9	1559.3	1553.3
5°	1565.9	1565.3	1559.3	1550.9	1546.0
7.5°	1548.4	1549.7	1547.8	1535.8	1529.2
10°	1531.6	1532.2	1527.4	1517.7	1509.9
12.5°	1509.9	1509.3	1502.7	1497.9	1485.2
15°	1475.6	1479.2	1475.6	1468.9	1458.7
17.5°	1442.4	1442.4	1444.9	1433.4	1425.6
20°	1405.1	1406.9	1406.9	1397.9	1388.8
22.5°	1361.7	1367.2	1369.0	1359.3	1348.5
25°	1310.5	1320.8	1326.8	1317.2	1305.7
27.5°	1248.5	1264.2	1282.2	1275.0	1262.4
30°	1179.3	1202.1	1232.3	1226.2	1217.2
32.5°	1113.6	1136.5	1178.0	1175.6	1170.8
35°	1054.0	1068.4	1117.2	1123.2	1119.0
37.5°	997.4	1010.6	1056.4	1070.2	1066.6
40°	937.7	952.2	988.3	1013.0	1014.2
42.5°	878.7	892.6	922.1	957.6	957.6
45°	816.1	829.9	857.0	896.2	901.0
47.5°	754.6	769.1	795.6	834.8	842.6
50°	694.4	707.7	734.2	772.1	784.2
52.5°	631.8	646.2	672.1	707.1	724.5
55°	571.6	581.2	609.5	643.2	661.9
57.5°	508.9	518.0	549.9	578.8	598.1
60°	448.7	460.1	484.8	514.3	536.6
62.5°	390.9	402.9	424.0	449.9	475.2
65°	334.9	343.9	364.4	390.3	412.6
67.5°	280.7	288.5	309.0	327.0	350.5
70°	225.9	236.1	251.1	268.6	283.7
72.5°	181.9	186.1	198.8	211.4	227.1
75°	134.3	141.5	151.8	159.0	168.0
77.5°	96.4	100.6	106.6	112.6	121.1
80°	64.4	66.3	71.7	72.9	79.5
82.5°	39.1	40.4	41.6	42.2	44.6
85°	21.1	21.1	21.1	19.9	19.9
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)