

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: P557294

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-97-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: P557294
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-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND
3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

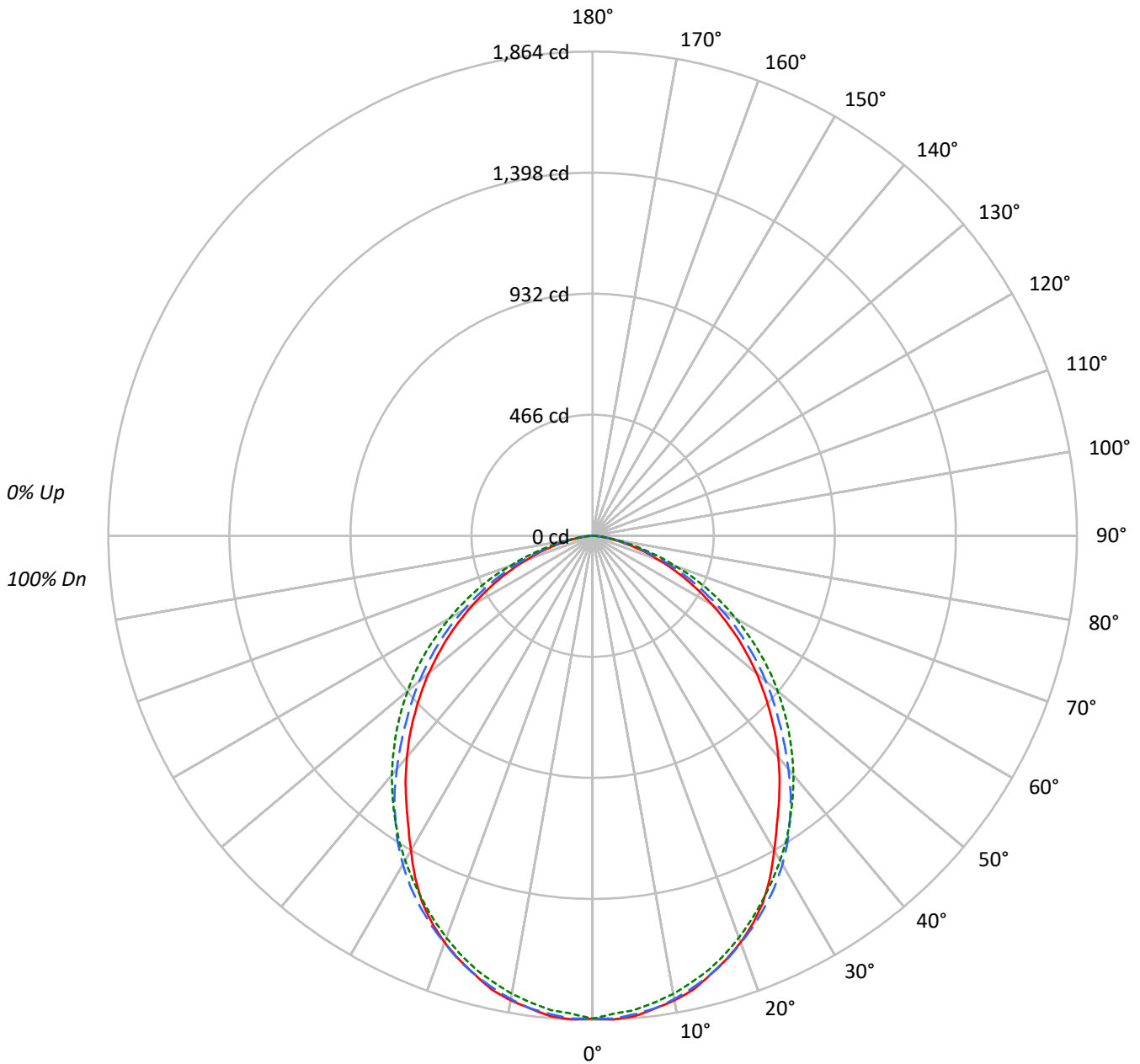
Lumens per Lamp: N/A
Luminaire Lumens: 4298.0 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5002	5002	5002
5°	5015	4994	4952
10°	4962	4948	4892
15°	4874	4874	4818
20°	4771	4777	4716
25°	4614	4671	4597
30°	4345	4540	4484
35°	4105	4351	4359
40°	3906	4116	4224
45°	3682	3867	4066
50°	3447	3644	3892
55°	3179	3391	3682
60°	2863	3094	3425
65°	2528	2751	3115
70°	2107	2343	2646
75°	1655	1871	2071
80°	1184	1317	1461
85°	772	772	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.0	4.1
10°-20°	491.6	11.4
20°-30°	718.5	16.7
30°-40°	815.5	19.0
40°-50°	787.3	18.3
50°-60°	649.4	15.1
60°-70°	432.5	10.1
70°-80°	193.5	4.5
80°-90°	34.6	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°	1385.1	32.2
0°-40°	2200.6	51.2
0°-60°	3637.4	84.6
0°-90°	4298.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4298.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1859	1859	1859	1859	1859	
5°	1857	1856	1849	1839	1833	176
15°	1750	1754	1750	1742	1730	493
25°	1554	1566	1573	1562	1548	712
35°	1250	1267	1325	1332	1327	783
45°	968	984	1016	1063	1068	747
55°	678	689	723	763	785	605
65°	397	408	432	463	489	394
75°	159	168	180	188	199	174
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1858.8	1858.8	1858.8	1858.8	1858.8
2.5°	1863.8	1864.5	1860.2	1848.8	1841.6
5°	1856.6	1855.9	1848.8	1838.8	1833.1
7.5°	1835.9	1837.4	1835.2	1820.9	1813.1
10°	1815.9	1816.6	1810.9	1799.5	1790.2
12.5°	1790.2	1789.5	1781.7	1775.9	1760.9
15°	1749.5	1753.8	1749.5	1741.7	1729.5
17.5°	1710.2	1710.2	1713.1	1699.5	1690.2
20°	1666.0	1668.1	1668.1	1657.4	1646.7
22.5°	1614.6	1621.0	1623.1	1611.7	1598.8
25°	1553.9	1566.0	1573.1	1561.7	1548.1
27.5°	1480.3	1498.9	1520.3	1511.7	1496.7
30°	1398.2	1425.3	1461.0	1453.9	1443.2
32.5°	1320.4	1347.5	1396.8	1393.9	1388.2
35°	1249.7	1266.8	1324.6	1331.8	1326.8
37.5°	1182.5	1198.2	1252.5	1268.9	1264.7
40°	1111.8	1129.0	1171.8	1201.1	1202.5
42.5°	1041.9	1058.3	1093.3	1135.4	1135.4
45°	967.6	984.0	1016.1	1062.6	1068.3
47.5°	894.8	911.9	943.3	989.7	999.0
50°	823.3	839.1	870.5	915.5	929.7
52.5°	749.1	766.2	796.9	838.3	859.0
55°	677.7	689.1	722.7	762.6	784.8
57.5°	603.4	614.1	652.0	686.2	709.1
60°	532.0	545.6	574.8	609.8	636.3
62.5°	463.4	477.7	502.7	533.4	563.4
65°	397.0	407.7	432.0	462.7	489.2
67.5°	332.8	342.0	366.3	387.8	415.6
70°	267.8	279.9	297.8	318.5	336.3
72.5°	215.7	220.7	235.6	250.6	269.2
75°	159.2	167.8	180.0	188.5	199.2
77.5°	114.3	119.3	126.4	133.5	143.5
80°	76.4	78.5	85.0	86.4	94.3
82.5°	46.4	47.8	49.3	50.0	52.8
85°	25.0	25.0	25.0	23.6	23.6
87.5°	14.3	14.3	12.1	10.0	7.1
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)