

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: P556277

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-80-86-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: P556277
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-40-UNV-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

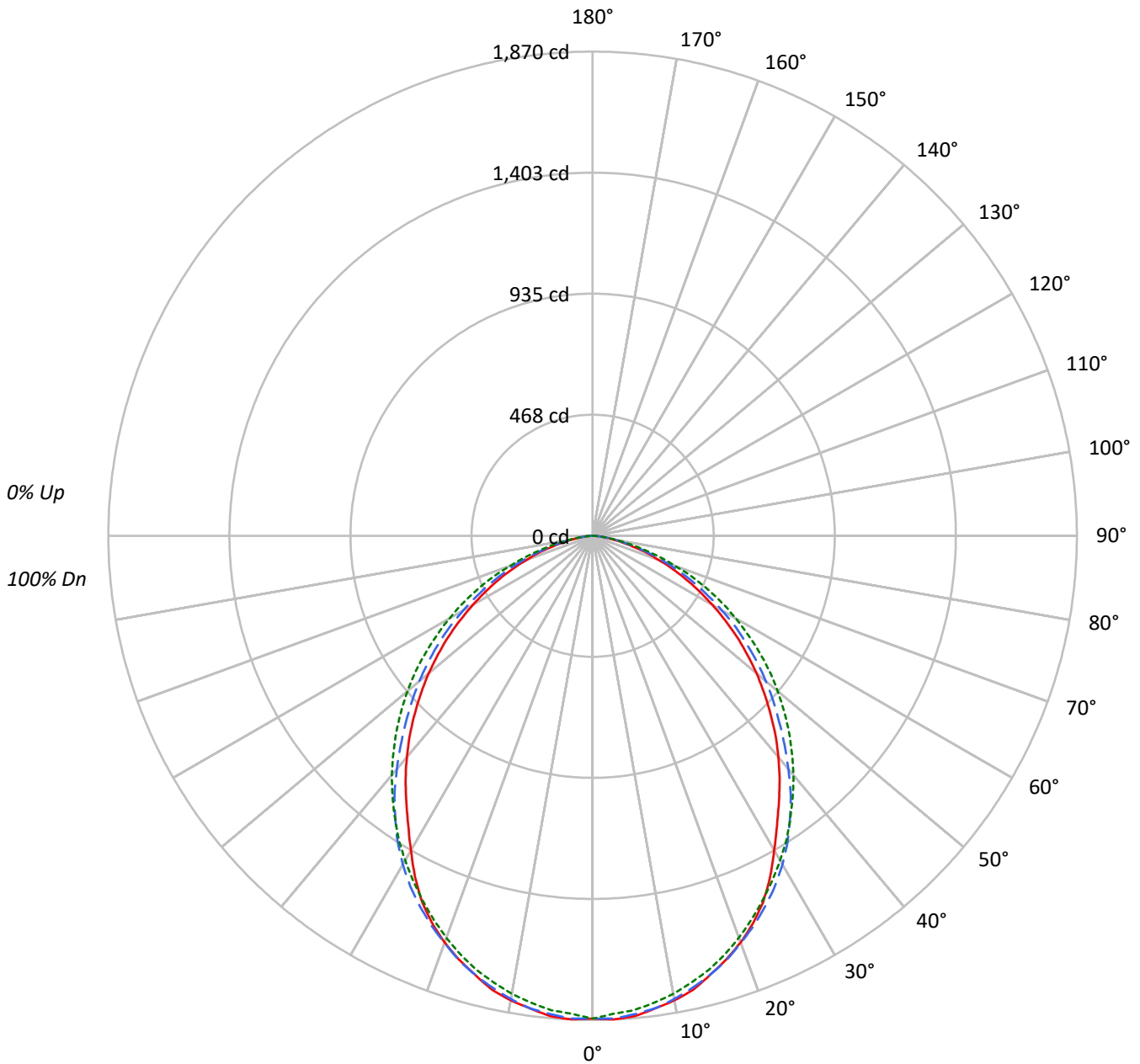
Lumens per Lamp: N/A
Luminaire Lumens: 4312.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5018	5018	5018
5°	5032	5010	4968
10°	4978	4964	4908
15°	4890	4890	4834
20°	4786	4792	4731
25°	4629	4686	4612
30°	4359	4555	4499
35°	4119	4366	4373
40°	3919	4130	4238
45°	3694	3880	4079
50°	3458	3656	3905
55°	3190	3401	3694
60°	2872	3104	3435
65°	2536	2760	3124
70°	2114	2350	2655
75°	1661	1877	2078
80°	1189	1322	1466
85°	775	775	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.6	4.1
10°-20°	493.3	11.4
20°-30°	720.8	16.7
30°-40°	818.2	19.0
40°-50°	789.8	18.3
50°-60°	651.6	15.1
60°-70°	433.9	10.1
70°-80°	194.2	4.5
80°-90°	34.7	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°	1389.6	32.2
0°-40°	2207.8	51.2
0°-60°	3649.2	84.6
0°-90°	4312.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4312.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1865	1865	1865	1865	1865	
5°	1863	1862	1855	1845	1839	176
15°	1755	1760	1755	1747	1735	495
25°	1559	1571	1578	1567	1553	714
35°	1254	1271	1329	1336	1331	786
45°	971	987	1020	1066	1072	749
55°	680	691	725	765	787	607
65°	398	409	433	464	491	395
75°	160	168	180	189	200	175
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°	1864.8	1864.8	1864.8	1864.8	1864.8
2.5°	1869.8	1870.6	1866.3	1854.8	1847.6
5°	1862.7	1862.0	1854.8	1844.8	1839.0
7.5°	1841.9	1843.3	1841.2	1826.9	1819.0
10°	1821.8	1822.6	1816.8	1805.4	1796.1
12.5°	1796.1	1795.3	1787.5	1781.7	1766.7
15°	1755.2	1759.5	1755.2	1747.3	1735.2
17.5°	1715.8	1715.8	1718.7	1705.1	1695.8
20°	1671.4	1673.5	1673.5	1662.8	1652.1
22.5°	1619.8	1626.3	1628.4	1616.9	1604.1
25°	1558.9	1571.1	1578.3	1566.8	1553.2
27.5°	1485.1	1503.8	1525.2	1516.7	1501.6
30°	1402.7	1430.0	1465.8	1458.6	1447.9
32.5°	1324.7	1351.9	1401.3	1398.4	1392.7
35°	1253.7	1270.9	1329.0	1336.1	1331.1
37.5°	1186.4	1202.1	1256.6	1273.1	1268.8
40°	1115.5	1132.7	1175.6	1205.0	1206.4
42.5°	1045.2	1061.7	1096.8	1139.1	1139.1
45°	970.7	987.2	1019.5	1066.0	1071.8
47.5°	897.7	914.9	946.4	993.0	1002.3
50°	826.0	841.8	873.3	918.4	932.8
52.5°	751.5	768.7	799.5	841.1	861.8
55°	679.9	691.3	725.0	765.1	787.3
57.5°	605.4	616.1	654.1	688.5	711.4
60°	533.7	547.3	576.7	611.8	638.3
62.5°	465.0	479.3	504.4	535.2	565.3
65°	398.3	409.1	433.4	464.2	490.7
67.5°	333.8	343.2	367.5	389.0	417.0
70°	268.7	280.8	298.7	319.5	337.4
72.5°	216.4	221.4	236.4	251.5	270.1
75°	159.8	168.4	180.5	189.1	199.9
77.5°	114.6	119.6	126.8	134.0	144.0
80°	76.7	78.8	85.3	86.7	94.6
82.5°	46.6	48.0	49.4	50.1	53.0
85°	25.1	25.1	25.1	23.6	23.6
87.5°	14.3	14.3	12.2	10.0	7.2
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)