

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: P556395

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-93-94-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: P556395
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-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

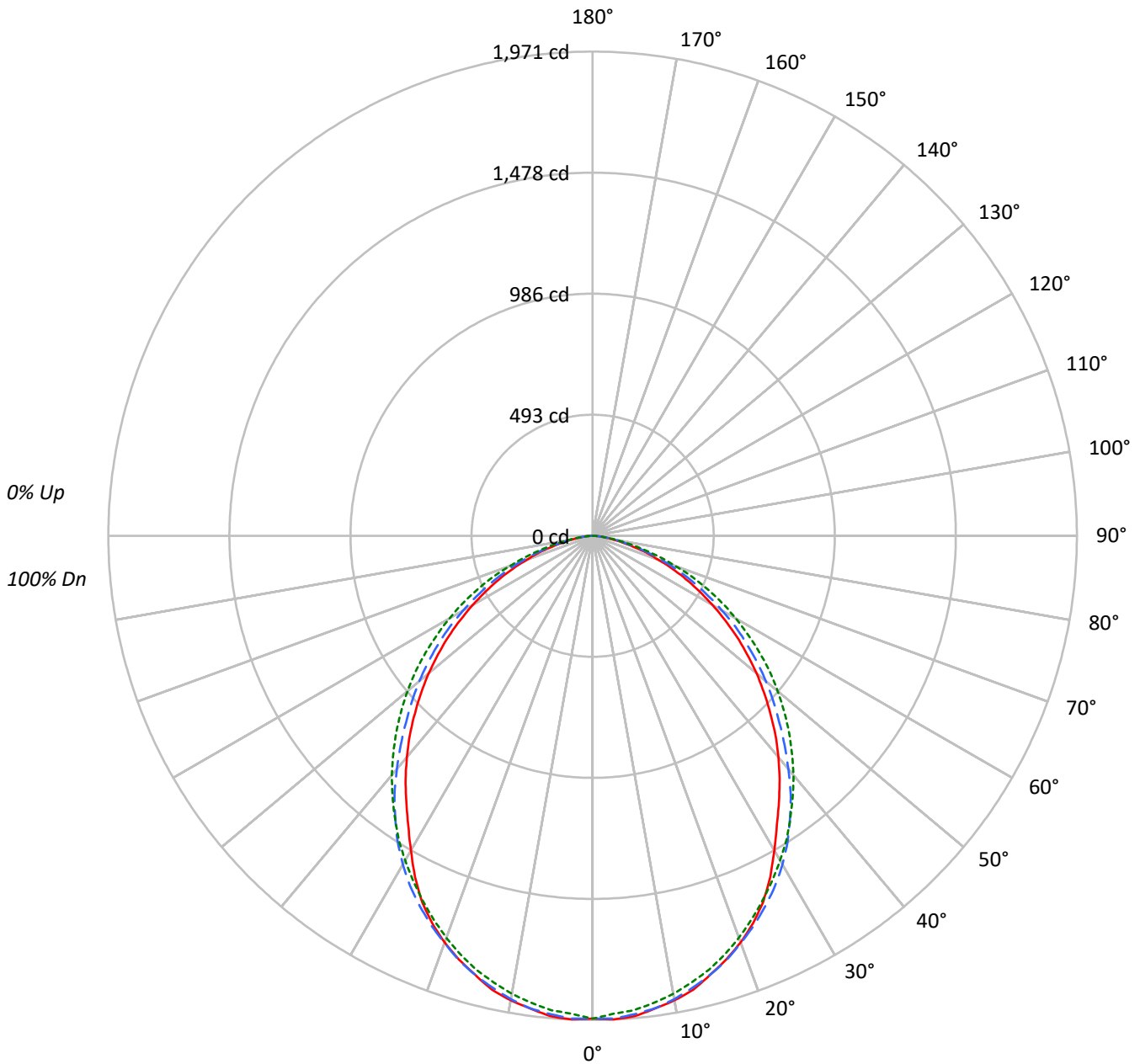
Lumens per Lamp: N/A
Luminaire Lumens: 4545.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5289	5289	5289
5°	5303	5281	5236
10°	5247	5233	5173
15°	5154	5154	5095
20°	5045	5052	4987
25°	4879	4939	4861
30°	4594	4801	4742
35°	4341	4602	4609
40°	4130	4353	4467
45°	3894	4089	4299
50°	3645	3854	4116
55°	3362	3585	3894
60°	3028	3272	3621
65°	2674	2909	3294
70°	2228	2478	2799
75°	1751	1979	2191
80°	1252	1393	1545
85°	815	815	769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.1	4.1
10°-20°	519.9	11.4
20°-30°	759.7	16.7
30°-40°	862.4	19.0
40°-50°	832.5	18.3
50°-60°	686.8	15.1
60°-70°	457.3	10.1
70°-80°	204.7	4.5
80°-90°	36.6	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°	1464.7	32.2
0°-40°	2327.1	51.2
0°-60°	3846.4	84.6
0°-90°	4545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4545.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1966	1966	1966	1966	1966	
5°	1963	1963	1955	1944	1938	186
15°	1850	1855	1850	1842	1829	522
25°	1643	1656	1664	1652	1637	752
35°	1322	1340	1401	1408	1403	828
45°	1023	1041	1074	1124	1130	789
55°	717	729	764	806	830	640
65°	420	431	457	489	517	416
75°	168	178	190	199	211	184
85°	26	26	26	25	25	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1965.6	1965.6	1965.6	1965.6	1965.6
2.5°	1970.9	1971.6	1967.1	1955.0	1947.5
5°	1963.3	1962.6	1955.0	1944.5	1938.4
7.5°	1941.4	1942.9	1940.7	1925.6	1917.3
10°	1920.3	1921.0	1915.0	1902.9	1893.1
12.5°	1893.1	1892.3	1884.0	1878.0	1862.1
15°	1850.1	1854.6	1850.1	1841.8	1828.9
17.5°	1808.5	1808.5	1811.5	1797.2	1787.4
20°	1761.7	1764.0	1764.0	1752.6	1741.3
22.5°	1707.3	1714.1	1716.4	1704.3	1690.7
25°	1643.2	1656.0	1663.5	1651.5	1637.1
27.5°	1565.4	1585.0	1607.7	1598.6	1582.7
30°	1478.5	1507.2	1545.0	1537.4	1526.1
32.5°	1396.2	1424.9	1477.0	1474.0	1468.0
35°	1321.5	1339.6	1400.8	1408.3	1403.0
37.5°	1250.5	1267.1	1324.5	1341.9	1337.3
40°	1175.7	1193.9	1239.2	1270.1	1271.6
42.5°	1101.7	1119.1	1156.1	1200.7	1200.7
45°	1023.2	1040.6	1074.5	1123.6	1129.7
47.5°	946.2	964.3	997.5	1046.6	1056.4
50°	870.7	887.3	920.5	968.1	983.2
52.5°	792.1	810.3	842.7	886.5	908.4
55°	716.6	728.7	764.2	806.5	829.9
57.5°	638.1	649.4	689.4	725.7	749.8
60°	562.6	576.9	607.9	644.9	672.8
62.5°	490.1	505.2	531.6	564.1	595.8
65°	419.9	431.2	456.9	489.3	517.3
67.5°	351.9	361.7	387.4	410.0	439.5
70°	283.2	296.0	314.9	336.8	355.7
72.5°	228.0	233.3	249.2	265.0	284.7
75°	168.4	177.5	190.3	199.4	210.7
77.5°	120.8	126.1	133.7	141.2	151.8
80°	80.8	83.1	89.9	91.4	99.7
82.5°	49.1	50.6	52.1	52.9	55.9
85°	26.4	26.4	26.4	24.9	24.9
87.5°	15.1	15.1	12.8	10.6	7.6
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)