

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: P556337

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-80-84-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: P556337
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-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

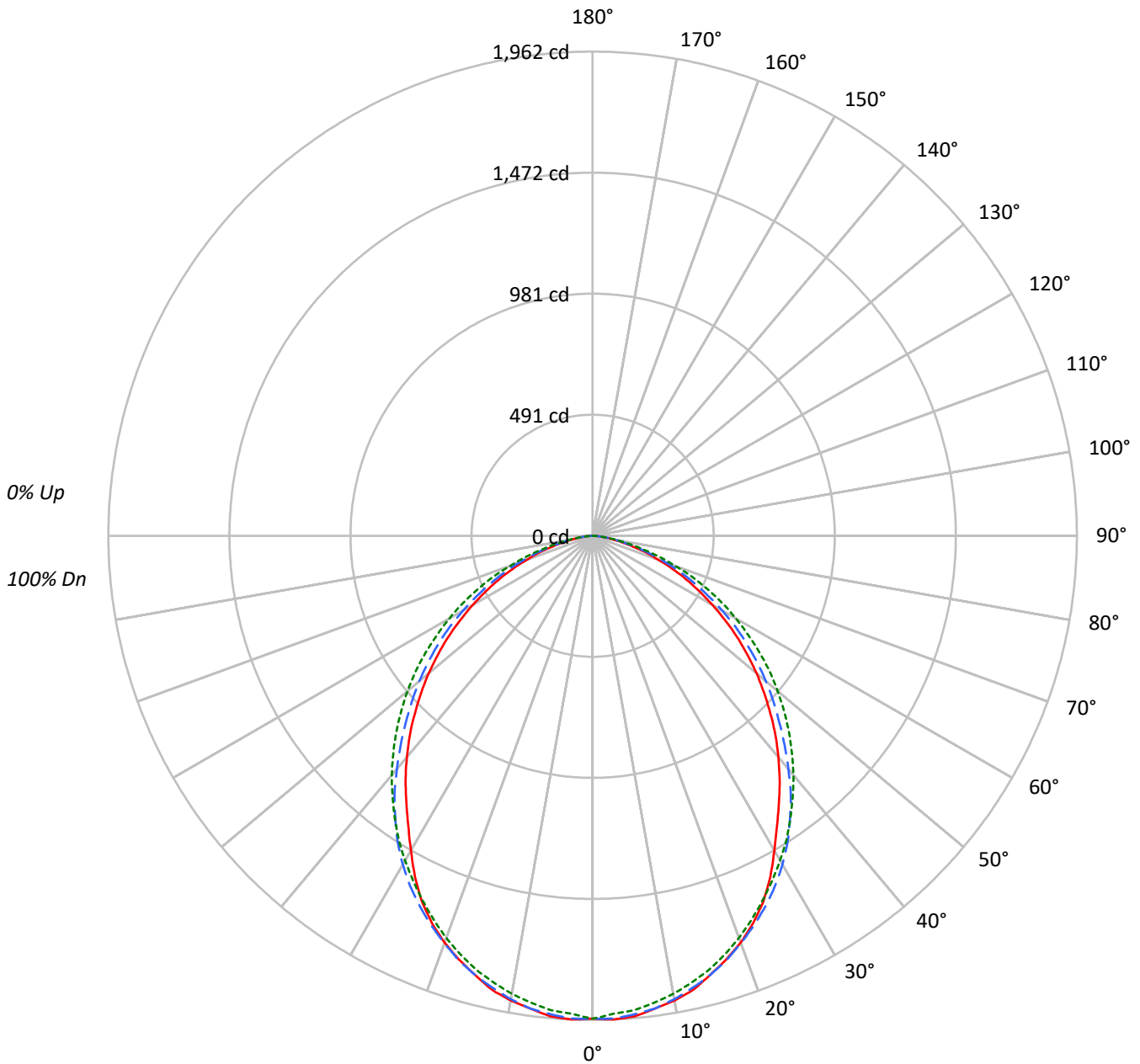
Lumens per Lamp: N/A
Luminaire Lumens: 4525.0 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5266	5266	5266
5°	5280	5258	5213
10°	5224	5210	5150
15°	5131	5131	5073
20°	5023	5029	4965
25°	4857	4918	4839
30°	4574	4780	4721
35°	4322	4581	4589
40°	4112	4334	4447
45°	3877	4071	4280
50°	3629	3836	4098
55°	3347	3569	3876
60°	3014	3257	3605
65°	2662	2896	3279
70°	2218	2467	2786
75°	1744	1970	2181
80°	1246	1387	1537
85°	812	812	766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.3	4.1
10°-20°	517.6	11.4
20°-30°	756.4	16.7
30°-40°	858.6	19.0
40°-50°	828.9	18.3
50°-60°	683.7	15.1
60°-70°	455.3	10.1
70°-80°	203.8	4.5
80°-90°	36.4	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°	1458.3	32.2
0°-40°	2316.9	51.2
0°-60°	3829.5	84.6
0°-90°	4525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4525.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1957	1957	1957	1957	1957	
5°	1955	1954	1946	1936	1930	185
15°	1842	1846	1842	1834	1821	519
25°	1636	1649	1656	1644	1630	749
35°	1316	1334	1395	1402	1397	824
45°	1019	1036	1070	1119	1125	786
55°	714	726	761	803	826	637
65°	418	429	455	487	515	414
75°	168	177	190	198	210	183
85°	26	26	26	25	25	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1956.9	1956.9	1956.9	1956.9	1956.9
2.5°	1962.2	1963.0	1958.4	1946.4	1938.9
5°	1954.7	1953.9	1946.4	1935.9	1929.9
7.5°	1932.9	1934.4	1932.1	1917.1	1908.8
10°	1911.8	1912.6	1906.6	1894.5	1884.8
12.5°	1884.8	1884.0	1875.8	1869.7	1853.9
15°	1841.9	1846.4	1841.9	1833.6	1820.9
17.5°	1800.6	1800.6	1803.6	1789.3	1779.5
20°	1754.0	1756.2	1756.2	1744.9	1733.7
22.5°	1699.8	1706.6	1708.9	1696.8	1683.3
25°	1635.9	1648.7	1656.2	1644.2	1629.9
27.5°	1558.5	1578.0	1600.6	1591.6	1575.8
30°	1472.0	1500.6	1538.2	1530.7	1519.4
32.5°	1390.1	1418.7	1470.5	1467.5	1461.5
35°	1315.7	1333.7	1394.6	1402.1	1396.9
37.5°	1245.0	1261.5	1318.7	1336.0	1331.4
40°	1170.6	1188.6	1233.7	1264.5	1266.0
42.5°	1096.9	1114.2	1151.0	1195.4	1195.4
45°	1018.7	1036.0	1069.8	1118.7	1124.7
47.5°	942.0	960.1	993.1	1042.0	1051.8
50°	866.8	883.4	916.4	963.8	978.8
52.5°	788.6	806.7	839.0	882.6	904.4
55°	713.5	725.5	760.8	802.9	826.2
57.5°	635.3	646.6	686.4	722.5	746.5
60°	560.1	574.4	605.2	642.0	669.9
62.5°	487.9	503.0	529.3	561.6	593.2
65°	418.0	429.3	454.8	487.2	515.0
67.5°	350.3	360.1	385.7	408.2	437.5
70°	281.9	294.7	313.5	335.3	354.1
72.5°	227.0	232.3	248.1	263.9	283.4
75°	167.7	176.7	189.5	198.5	209.8
77.5°	120.3	125.6	133.1	140.6	151.1
80°	80.4	82.7	89.5	91.0	99.2
82.5°	48.9	50.4	51.9	52.6	55.6
85°	26.3	26.3	26.3	24.8	24.8
87.5°	15.0	15.0	12.8	10.5	7.5
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)