

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: P557207

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-82-87-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: P557207
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-30-UNV-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

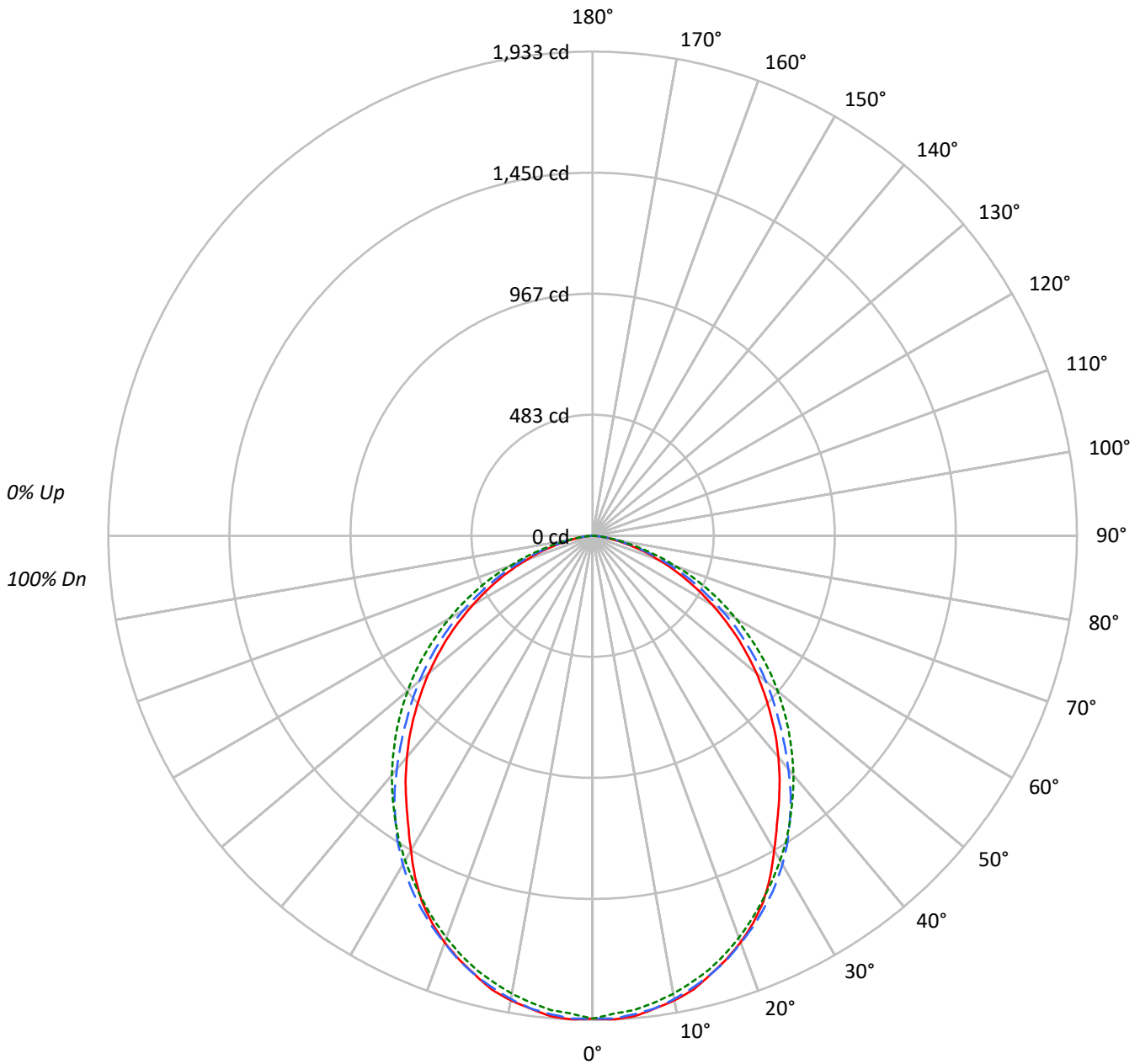
Lumens per Lamp: N/A
Luminaire Lumens: 4457.0 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P557207

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-82-87-EDD

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°	5187	5187	5187
5°	5201	5179	5135
10°	5146	5131	5073
15°	5054	5054	4997
20°	4947	4954	4890
25°	4784	4844	4767
30°	4505	4708	4650
35°	4257	4512	4520
40°	4050	4269	4380
45°	3819	4010	4216
50°	3574	3779	4036
55°	3297	3516	3818
60°	2969	3208	3551
65°	2621	2853	3230
70°	2185	2430	2744
75°	1717	1940	2148
80°	1227	1365	1514
85°	800	800	753



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.5	4.1
10°-20°	509.8	11.4
20°-30°	745.0	16.7
30°-40°	845.7	19.0
40°-50°	816.4	18.3
50°-60°	673.5	15.1
60°-70°	448.5	10.1
70°-80°	200.7	4.5
80°-90°	35.9	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°	1436.4	32.2
0°-40°	2282.1	51.2
0°-60°	3771.9	84.6
0°-90°	4457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1928	1928	1928	1928	1928	
5°	1925	1925	1917	1907	1901	182
15°	1814	1819	1814	1806	1794	511
25°	1611	1624	1631	1620	1605	738
35°	1296	1314	1374	1381	1376	812
45°	1003	1020	1054	1102	1108	774
55°	703	715	749	791	814	627
65°	412	423	448	480	507	408
75°	165	174	187	196	207	181
85°	26	26	26	24	24	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1927.5	1927.5	1927.5	1927.5	1927.5
2.5°	1932.7	1933.5	1929.0	1917.2	1909.8
5°	1925.3	1924.6	1917.2	1906.8	1900.9
7.5°	1903.8	1905.3	1903.1	1888.3	1880.1
10°	1883.1	1883.8	1877.9	1866.1	1856.4
12.5°	1856.4	1855.7	1847.6	1841.6	1826.1
15°	1814.2	1818.7	1814.2	1806.1	1793.5
17.5°	1773.5	1773.5	1776.5	1762.4	1752.8
20°	1727.6	1729.8	1729.8	1718.7	1707.6
22.5°	1674.3	1680.9	1683.2	1671.3	1658.0
25°	1611.3	1623.9	1631.3	1619.5	1605.4
27.5°	1535.1	1554.3	1576.5	1567.7	1552.1
30°	1449.9	1478.1	1515.1	1507.7	1496.6
32.5°	1369.2	1397.3	1448.4	1445.5	1439.5
35°	1295.9	1313.7	1373.6	1381.0	1375.9
37.5°	1226.3	1242.6	1298.8	1315.9	1311.4
40°	1153.0	1170.7	1215.2	1245.5	1247.0
42.5°	1080.4	1097.4	1133.7	1177.4	1177.4
45°	1003.4	1020.4	1053.7	1101.9	1107.8
47.5°	927.9	945.6	978.2	1026.3	1036.0
50°	853.8	870.1	902.7	949.3	964.1
52.5°	776.8	794.6	826.4	869.4	890.8
55°	702.7	714.6	749.4	790.9	813.8
57.5°	625.7	636.8	676.1	711.6	735.3
60°	551.7	565.7	596.1	632.4	659.8
62.5°	480.6	495.4	521.3	553.2	584.3
65°	411.7	422.8	448.0	479.8	507.2
67.5°	345.1	354.7	379.9	402.1	431.0
70°	277.7	290.3	308.8	330.3	348.8
72.5°	223.6	228.8	244.4	259.9	279.2
75°	165.1	174.0	186.6	195.5	206.6
77.5°	118.5	123.7	131.1	138.5	148.8
80°	79.2	81.5	88.1	89.6	97.7
82.5°	48.1	49.6	51.1	51.8	54.8
85°	25.9	25.9	25.9	24.4	24.4
87.5°	14.8	14.8	12.6	10.4	7.4
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)