

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: P557446

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-87-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: P557446
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-LD4-2STD-30-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

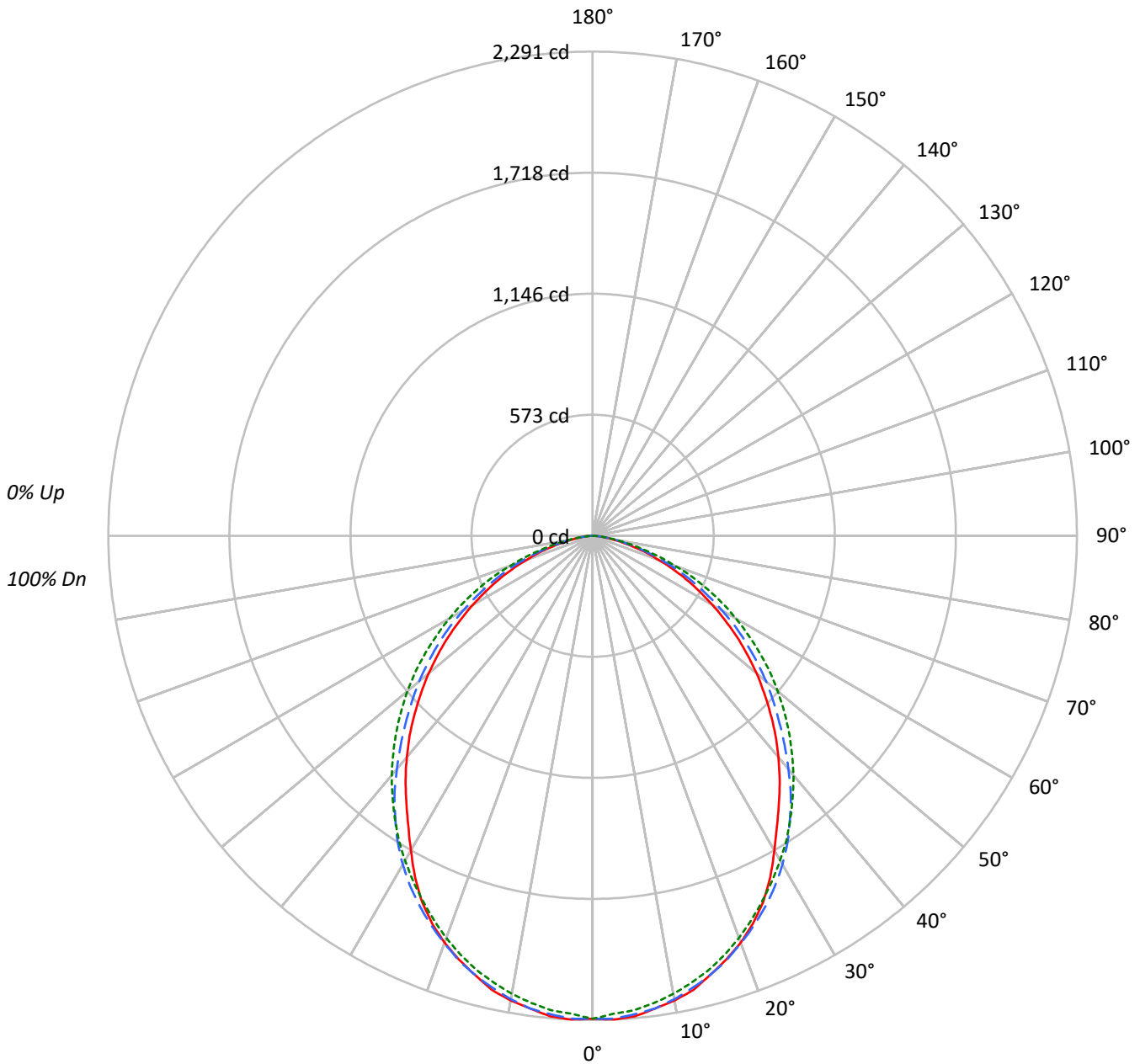
Lumens per Lamp: N/A
Luminaire Lumens: 5284.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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

TEST NUMBER: P557446

CATALOG NUMBER: FUSL-12-4-LD4-2STD-30-UNV-81-87-EDD-90

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6149	6149	6149
5°	6166	6140	6088
10°	6100	6084	6014
15°	5992	5992	5924
20°	5865	5873	5798
25°	5672	5742	5651
30°	5341	5581	5513
35°	5047	5350	5359
40°	4802	5061	5193
45°	4527	4754	4998
50°	4237	4480	4785
55°	3909	4168	4526
60°	3520	3803	4210
65°	3108	3382	3829
70°	2590	2880	3253
75°	2036	2300	2546
80°	1455	1619	1796
85°	948	948	895



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.2	4.1
10°-20°	604.4	11.4
20°-30°	883.3	16.7
30°-40°	1002.6	19.0
40°-50°	967.9	18.3
50°-60°	798.4	15.1
60°-70°	531.7	10.1
70°-80°	237.9	4.5
80°-90°	42.6	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°	1702.9	32.2
0°-40°	2705.5	51.2
0°-60°	4471.8	84.6
0°-90°	5284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5284.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2285	2285	2285	2285	2285	
5°	2283	2282	2273	2261	2254	216
15°	2151	2156	2151	2141	2126	606
25°	1910	1925	1934	1920	1903	875
35°	1536	1557	1628	1637	1631	963
45°	1190	1210	1249	1306	1313	918
55°	833	847	888	938	965	744
65°	488	501	531	569	601	484
75°	196	206	221	232	245	214
85°	31	31	31	29	29	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2285.2	2285.2	2285.2	2285.2	2285.2
2.5°	2291.3	2292.2	2286.9	2272.9	2264.1
5°	2282.6	2281.7	2272.9	2260.6	2253.6
7.5°	2257.1	2258.9	2256.2	2238.7	2229.0
10°	2232.5	2233.4	2226.4	2212.3	2200.9
12.5°	2200.9	2200.0	2190.4	2183.4	2164.9
15°	2150.9	2156.1	2150.9	2141.2	2126.3
17.5°	2102.6	2102.6	2106.1	2089.4	2078.0
20°	2048.2	2050.8	2050.8	2037.6	2024.5
22.5°	1984.9	1992.9	1995.5	1981.4	1965.6
25°	1910.3	1925.3	1934.0	1920.0	1903.3
27.5°	1819.9	1842.7	1869.1	1858.5	1840.1
30°	1718.9	1752.3	1796.2	1787.4	1774.3
32.5°	1623.3	1656.6	1717.2	1713.7	1706.7
35°	1536.3	1557.4	1628.5	1637.3	1631.2
37.5°	1453.8	1473.1	1539.8	1560.0	1554.8
40°	1366.9	1388.0	1440.6	1476.6	1478.4
42.5°	1280.9	1301.1	1344.1	1395.9	1395.9
45°	1189.6	1209.8	1249.3	1306.3	1313.3
47.5°	1100.0	1121.1	1159.7	1216.8	1228.2
50°	1012.2	1031.5	1070.2	1125.5	1143.0
52.5°	920.9	942.0	979.7	1030.7	1056.1
55°	833.1	847.2	888.4	937.6	964.8
57.5°	741.8	755.0	801.5	843.7	871.8
60°	654.0	670.7	706.7	749.7	782.2
62.5°	569.8	587.3	618.0	655.8	692.7
65°	488.1	501.3	531.1	568.9	601.4
67.5°	409.1	420.5	450.4	476.7	510.9
70°	329.2	344.1	366.1	391.5	413.5
72.5°	265.1	271.3	289.7	308.1	331.0
75°	195.8	206.3	221.2	231.8	244.9
77.5°	140.5	146.6	155.4	164.2	176.5
80°	93.9	96.6	104.5	106.2	115.9
82.5°	57.1	58.8	60.6	61.5	65.0
85°	30.7	30.7	30.7	29.0	29.0
87.5°	17.6	17.6	14.9	12.3	8.8
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)