

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P562790

Luminaire Tested: FSR-24-4-LD4-2LO-40-UNV-93-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562790
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-2LO-40-UNV-93-87-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4647.0 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

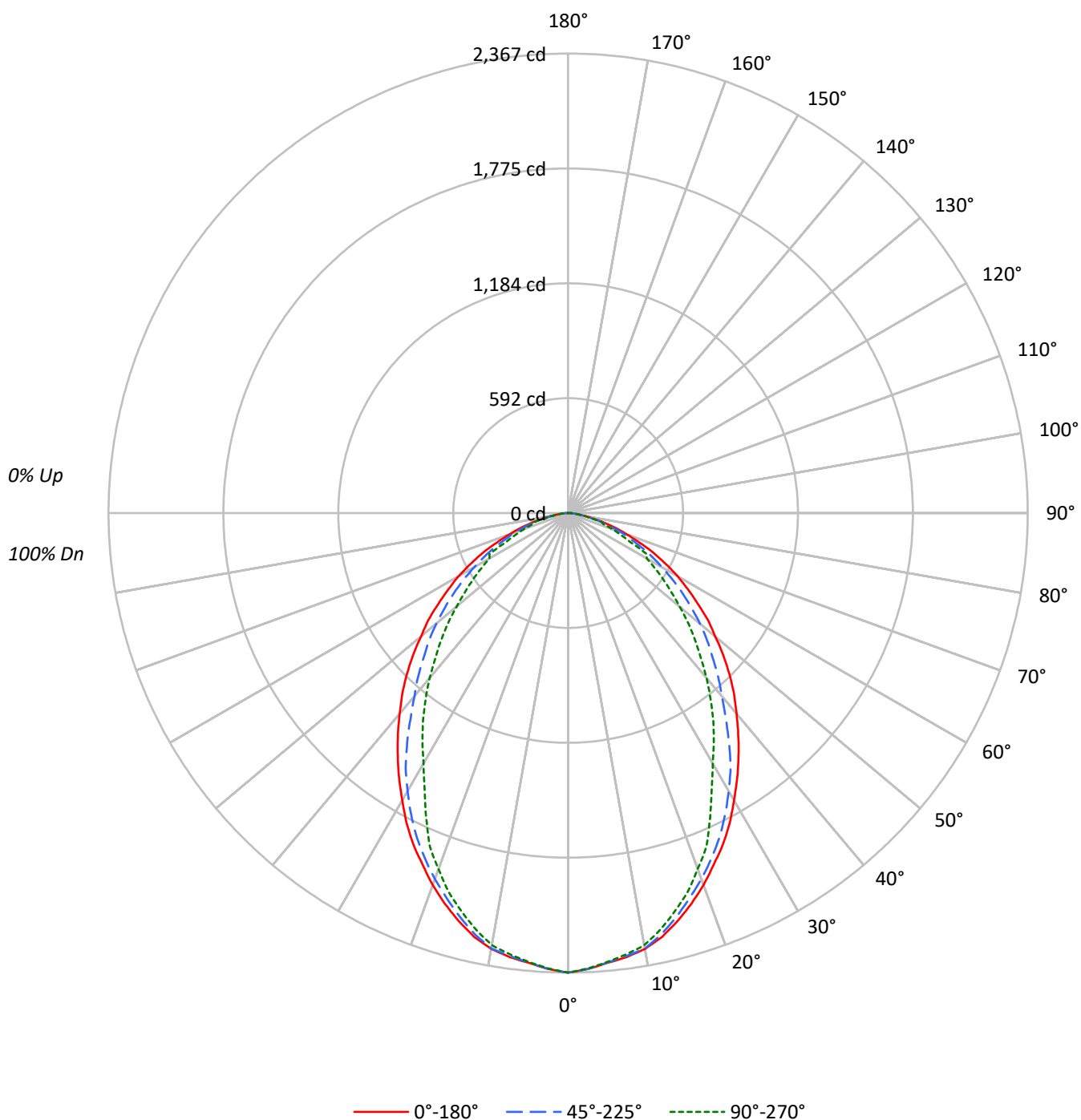
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	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	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3185	3185	3185
5°	3142	3138	3134
10°	3114	3111	3088
15°	3031	3000	2958
20°	2919	2872	2794
25°	2799	2738	2568
30°	2653	2568	2313
35°	2513	2373	2140
40°	2370	2163	1947
45°	2234	1999	1760
50°	2068	1856	1569
55°	1913	1682	1406
60°	1753	1502	1259
65°	1542	1316	1115
70°	1270	1152	947
75°	1010	882	925
80°	679	636	594
85°	423	506	591

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2234 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.3	4.7
10°-20°	604.7	13.0
20°-30°	837.2	18.0
30°-40°	892.7	19.2
40°-50°	814.4	17.5
50°-60°	638.0	13.7
60°-70°	415.8	8.9
70°-80°	184.2	4.0
80°-90°	39.6	0.9
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°	1662.3	35.8
0°-40°	2555.0	55.0
0°-60°	4007.4	86.2
0°-90°	4647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2367	2367	2367	2367	2367	
5°	2326	2323	2323	2321	2321	221
15°	2176	2176	2154	2132	2124	612
25°	1886	1874	1844	1779	1730	866
35°	1530	1519	1445	1335	1303	956
45°	1174	1149	1051	963	925	904
55°	816	791	717	632	599	731
65°	484	457	413	421	350	477
75°	194	181	170	162	178	208
85°	27	30	33	36	38	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2367.1	2367.1	2367.1	2367.1	2367.1
2.5°	2350.7	2350.7	2350.7	2348.0	2348.0
5°	2326.1	2323.3	2323.3	2320.6	2320.6
7.5°	2306.9	2304.2	2301.4	2298.7	2293.2
10°	2279.5	2279.5	2276.8	2263.1	2260.4
12.5°	2235.8	2233.0	2222.1	2202.9	2197.5
15°	2175.6	2175.6	2153.7	2131.8	2123.6
17.5°	2109.9	2107.1	2079.8	2057.9	2046.9
20°	2038.7	2033.3	2005.9	1970.3	1951.2
22.5°	1959.4	1959.4	1926.5	1880.0	1860.9
25°	1885.5	1874.5	1844.4	1778.8	1729.5
27.5°	1800.7	1784.2	1751.4	1658.4	1600.9
30°	1707.6	1699.4	1652.9	1532.5	1488.7
32.5°	1620.0	1606.4	1557.1	1431.2	1395.6
35°	1529.7	1518.8	1444.9	1335.4	1302.6
37.5°	1439.4	1425.7	1332.7	1245.1	1204.1
40°	1349.1	1332.7	1231.4	1152.1	1108.3
42.5°	1264.3	1242.4	1143.9	1059.0	1009.8
45°	1174.0	1149.4	1050.8	963.3	925.0
47.5°	1083.7	1061.8	971.5	881.2	837.4
50°	987.9	968.7	886.6	796.3	749.8
52.5°	908.5	878.4	799.1	708.8	670.5
55°	815.5	790.9	717.0	632.1	599.3
57.5°	730.7	706.0	637.6	558.3	530.9
60°	651.3	615.7	558.3	489.8	468.0
62.5°	563.7	536.4	487.1	429.6	457.0
65°	484.4	457.0	413.2	421.4	350.3
67.5°	396.8	383.1	344.8	306.5	295.5
70°	322.9	306.5	292.8	251.8	240.8
72.5°	257.2	240.8	221.7	199.8	191.6
75°	194.3	180.6	169.7	161.5	177.9
77.5°	134.1	128.6	120.4	112.2	109.5
80°	87.6	84.8	82.1	79.4	76.6
82.5°	52.0	52.0	52.0	52.0	52.0
85°	27.4	30.1	32.8	35.6	38.3
87.5°	16.4	16.4	19.2	21.9	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)