

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: P590637

Luminaire Tested: FSR-24-2-LD4-3STD-35-UNV-93-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590637
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-3STD-35-UNV-93-84-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5865.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

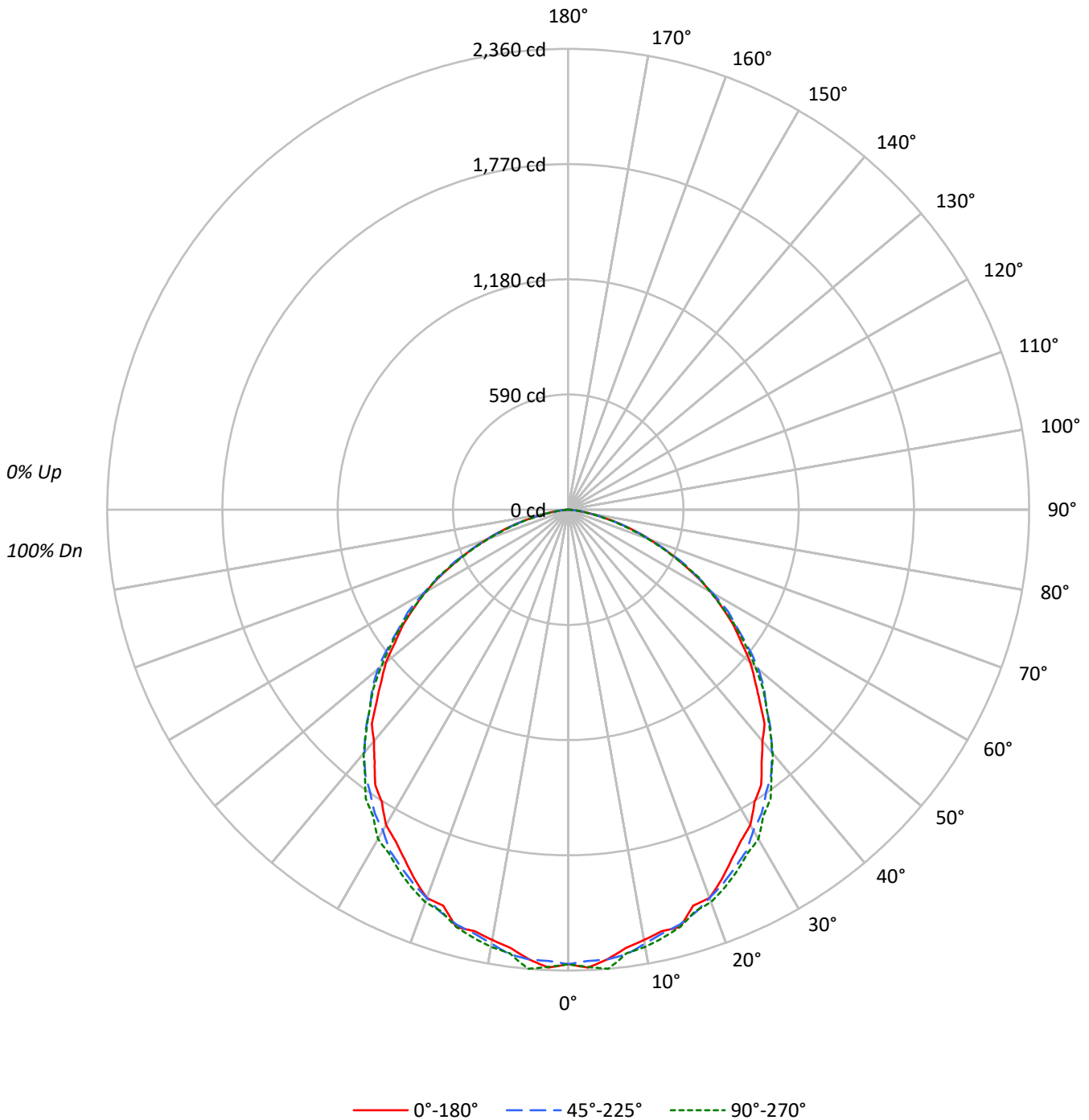
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6262	6262	6262
5°	6242	6244	6375
10°	6115	6168	6212
15°	6163	6130	6164
20°	6059	6059	6124
25°	5873	6001	6067
30°	5792	5894	6051
35°	5656	5804	5934
40°	5436	5697	5723
45°	5271	5459	5467
50°	5098	5328	5226
55°	4858	4952	4917
60°	4542	4588	4505
65°	4050	4153	4022
70°	3475	3487	3390
75°	2752	2746	2640
80°	1844	1793	1723
85°	1000	991	926

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5600 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.9	3.7
10°-20°	620.4	10.6
20°-30°	929.5	15.8
30°-40°	1101.6	18.8
40°-50°	1103.6	18.8
50°-60°	936.8	16.0
60°-70°	631.6	10.8
70°-80°	277.5	4.7
80°-90°	45.1	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°	1768.7	30.2
0°-40°	2870.3	48.9
0°-60°	4910.8	83.7
0°-90°	5865.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5865.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2327	2327	2327	2327	2327	
5°	2311	2305	2312	2304	2360	218
15°	2212	2187	2200	2212	2213	616
25°	1978	1989	2021	2048	2043	914
35°	1722	1727	1767	1808	1806	1069
45°	1385	1411	1434	1471	1436	1071
55°	1035	1028	1056	1048	1048	921
65°	636	628	652	627	632	633
75°	265	259	264	246	254	284
85°	32	32	32	31	30	47
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2327.1	2327.1	2327.1	2327.1	2327.1
2.5°	2347.2	2329.5	2313.0	2332.2	2343.9
5°	2310.6	2305.2	2311.5	2304.5	2360.1
7.5°	2263.1	2283.8	2295.8	2288.3	2291.6
10°	2237.8	2230.6	2257.4	2276.0	2273.3
12.5°	2210.8	2221.6	2223.1	2243.3	2245.1
15°	2212.3	2186.8	2200.3	2211.7	2212.6
17.5°	2126.4	2154.0	2163.3	2189.5	2157.0
20°	2115.9	2095.7	2115.9	2142.6	2138.4
22.5°	2051.3	2028.7	2072.0	2095.7	2094.2
25°	1977.9	1988.8	2021.2	2047.7	2043.4
27.5°	1913.6	1926.3	1972.5	2008.9	1985.5
30°	1864.1	1857.8	1896.8	1929.3	1947.3
32.5°	1775.4	1798.3	1843.9	1876.1	1859.0
35°	1721.7	1726.8	1766.7	1807.6	1806.4
37.5°	1627.6	1651.3	1707.5	1718.9	1708.4
40°	1547.4	1571.1	1621.9	1634.2	1629.1
42.5°	1488.2	1492.4	1536.0	1550.1	1527.6
45°	1385.1	1411.0	1434.4	1471.4	1436.5
47.5°	1297.4	1309.4	1359.9	1369.8	1351.5
50°	1217.8	1222.0	1272.8	1260.4	1248.4
52.5°	1117.7	1135.4	1164.0	1161.6	1147.5
55°	1035.4	1028.5	1055.5	1048.3	1048.0
57.5°	936.5	948.6	970.8	959.4	941.0
60°	844.0	844.3	852.4	839.5	837.1
62.5°	740.9	744.5	746.3	730.4	756.3
65°	636.1	627.7	652.3	627.4	631.6
67.5°	539.6	543.8	541.4	525.8	531.8
70°	441.7	447.1	443.2	425.5	430.9
72.5°	352.1	345.5	349.7	327.5	337.7
75°	264.7	259.3	264.1	245.5	253.9
77.5°	180.3	184.5	181.5	171.6	177.3
80°	119.0	115.7	115.7	110.0	111.2
82.5°	69.4	66.1	65.2	63.4	66.1
85°	32.4	31.5	32.1	31.2	30.0
87.5°	11.7	12.0	12.0	11.4	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)