

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: P590701

Luminaire Tested: FSR-24-2-LD4-3STD-50-UNV-93-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590701
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6024.0 lumens
Efficiency: N/A
Efficacy: 120.5 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

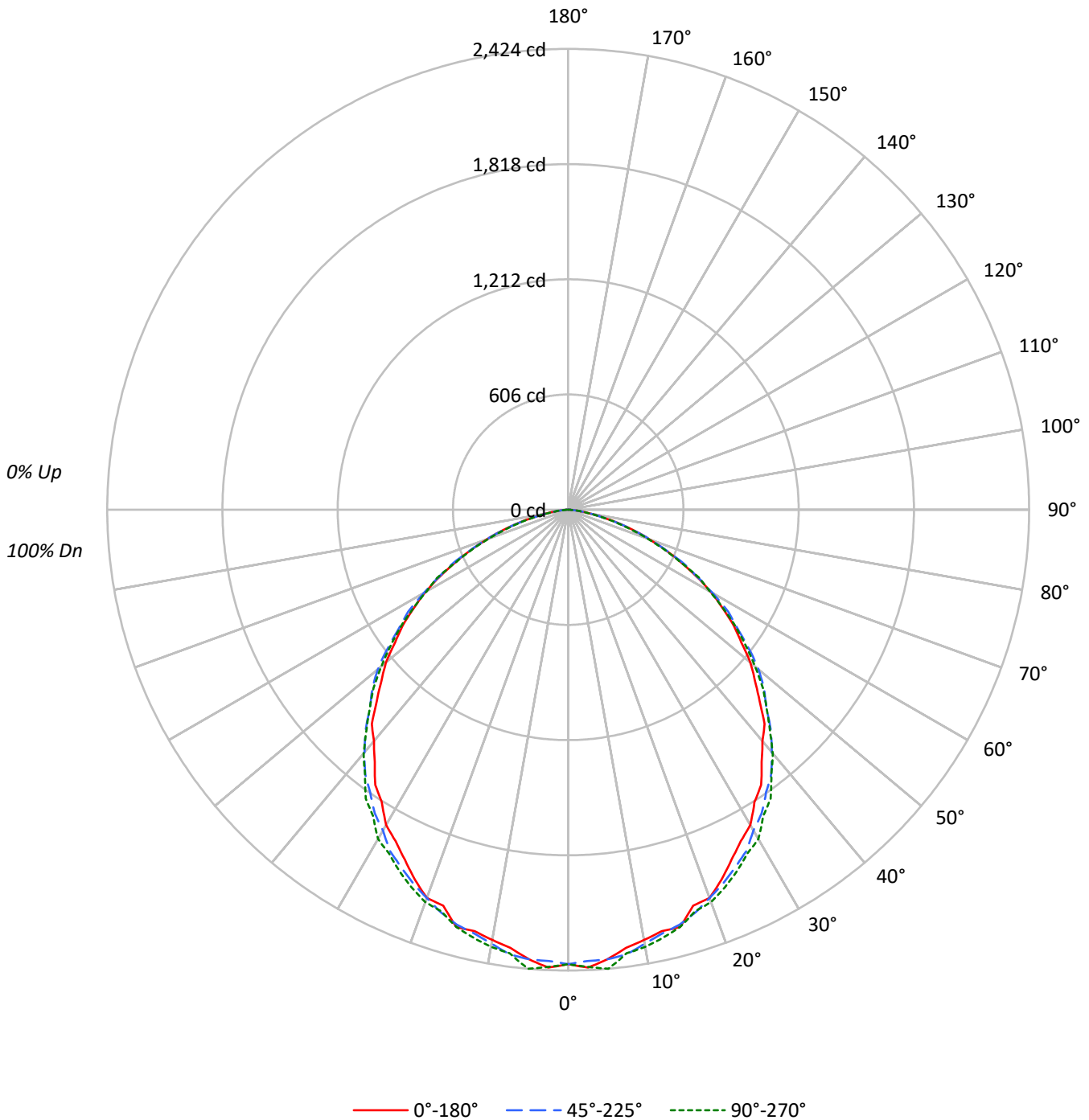
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6432	6432	6432
5°	6411	6413	6548
10°	6281	6336	6380
15°	6330	6296	6331
20°	6223	6223	6290
25°	6032	6164	6232
30°	5949	6054	6215
35°	5809	5961	6095
40°	5583	5852	5878
45°	5414	5607	5615
50°	5236	5473	5368
55°	4989	5086	5050
60°	4666	4712	4627
65°	4160	4266	4131
70°	3570	3581	3482
75°	2827	2821	2712
80°	1894	1841	1770
85°	1028	1019	954

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5751 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.8	3.7
10°-20°	637.2	10.6
20°-30°	954.7	15.8
30°-40°	1131.5	18.8
40°-50°	1133.6	18.8
50°-60°	962.2	16.0
60°-70°	648.7	10.8
70°-80°	285.1	4.7
80°-90°	46.3	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°	1816.7	30.2
0°-40°	2948.2	48.9
0°-60°	5043.9	83.7
0°-90°	6024.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6024.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2390	2390	2390	2390	2390	
5°	2373	2368	2374	2367	2424	224
15°	2272	2246	2260	2272	2273	633
25°	2032	2043	2076	2103	2099	939
35°	1768	1774	1815	1857	1855	1098
45°	1423	1449	1473	1511	1476	1101
55°	1064	1056	1084	1077	1076	946
65°	653	645	670	644	649	650
75°	272	266	271	252	261	291
85°	33	32	33	32	31	48
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2390.2	2390.2	2390.2	2390.2	2390.2
2.5°	2410.8	2392.6	2375.7	2395.4	2407.5
5°	2373.2	2367.6	2374.1	2367.0	2424.1
7.5°	2324.4	2345.7	2358.1	2350.4	2353.8
10°	2298.5	2291.1	2318.6	2337.7	2334.9
12.5°	2270.7	2281.8	2283.4	2304.1	2305.9
15°	2272.3	2246.1	2259.9	2271.7	2272.6
17.5°	2184.0	2212.4	2222.0	2248.8	2215.5
20°	2173.2	2152.5	2173.2	2200.7	2196.4
22.5°	2106.9	2083.7	2128.2	2152.5	2151.0
25°	2031.6	2042.7	2076.0	2103.2	2098.8
27.5°	1965.5	1978.5	2026.0	2063.4	2039.3
30°	1914.6	1908.1	1948.2	1981.6	2000.1
32.5°	1823.6	1847.0	1893.9	1927.0	1909.4
35°	1768.3	1773.6	1814.6	1856.6	1855.4
37.5°	1671.7	1696.1	1753.8	1765.5	1754.7
40°	1589.3	1613.7	1665.9	1678.5	1673.3
42.5°	1528.5	1532.9	1577.6	1592.1	1569.0
45°	1422.7	1449.2	1473.3	1511.3	1475.5
47.5°	1332.6	1344.9	1396.8	1406.9	1388.1
50°	1250.8	1255.1	1307.3	1294.6	1282.3
52.5°	1148.0	1166.2	1195.5	1193.1	1178.6
55°	1063.5	1056.4	1084.1	1076.7	1076.4
57.5°	961.9	974.3	997.1	985.4	966.6
60°	866.9	867.2	875.5	862.3	859.8
62.5°	761.0	764.7	766.6	750.2	776.8
65°	653.3	644.7	670.0	644.4	648.7
67.5°	554.3	558.6	556.1	540.1	546.2
70°	453.7	459.2	455.2	437.0	442.5
72.5°	361.7	354.9	359.2	336.4	346.9
75°	271.9	266.3	271.3	252.1	260.8
77.5°	185.2	189.5	186.4	176.2	182.1
80°	122.2	118.8	118.8	113.0	114.2
82.5°	71.3	67.9	67.0	65.1	67.9
85°	33.3	32.4	33.0	32.1	30.9
87.5°	12.0	12.3	12.3	11.7	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)