

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: P590684

Luminaire Tested: FSR-24-2-LD4-3STD-50-UNV-80-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590684
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-80-97-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5746.0 lumens
Efficiency: N/A
Efficacy: 114.9 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

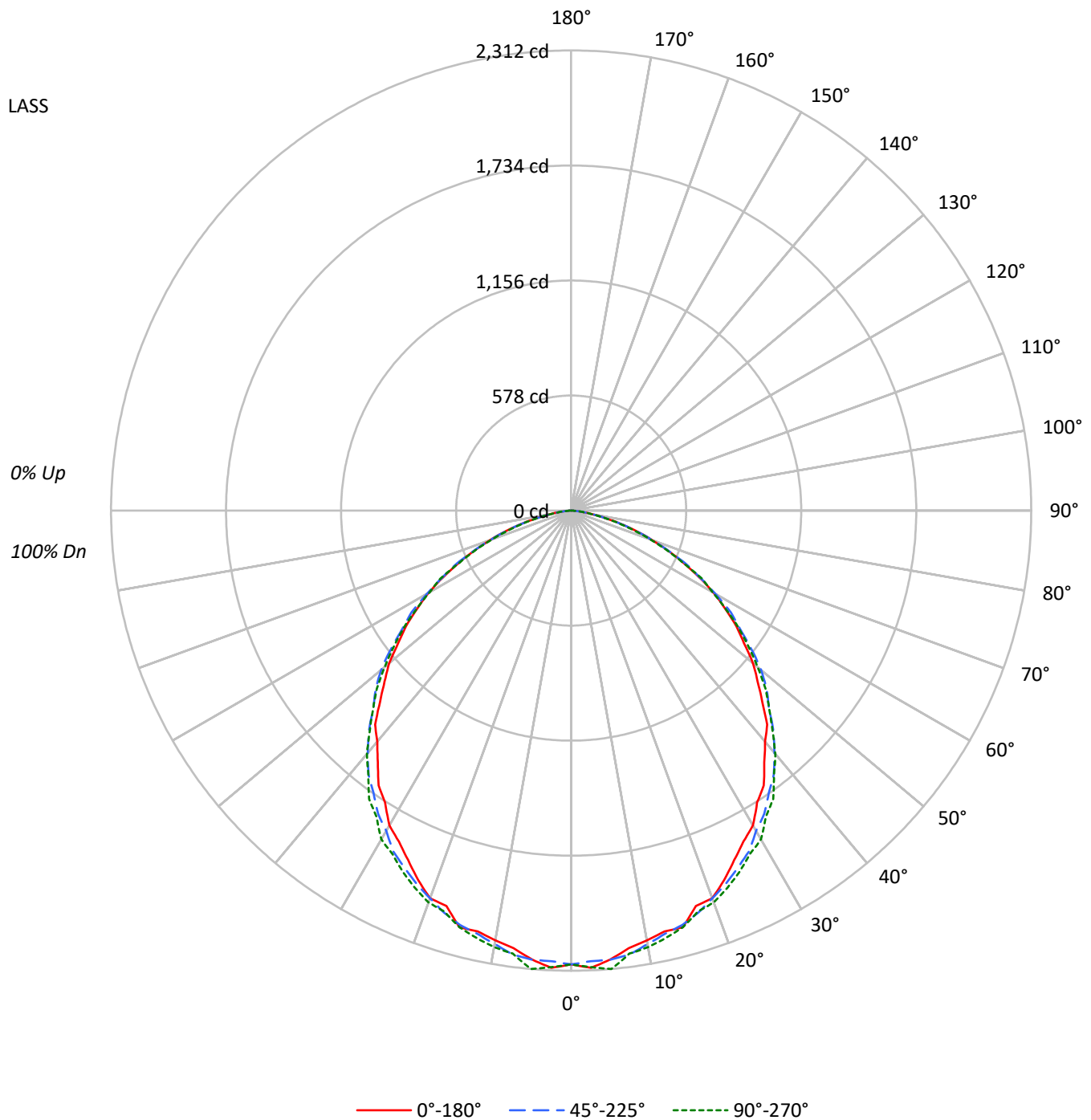
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6135	6135	6135
5°	6115	6117	6246
10°	5991	6043	6086
15°	6038	6005	6039
20°	5936	5936	5999
25°	5754	5880	5944
30°	5675	5774	5928
35°	5541	5686	5814
40°	5325	5582	5607
45°	5164	5348	5356
50°	4995	5220	5120
55°	4759	4852	4817
60°	4450	4494	4414
65°	3968	4069	3940
70°	3404	3416	3321
75°	2696	2690	2586
80°	1807	1756	1688
85°	982	973	908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5486 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.5	3.7
10°-20°	607.8	10.6
20°-30°	910.6	15.8
30°-40°	1079.2	18.8
40°-50°	1081.2	18.8
50°-60°	917.8	16.0
60°-70°	618.8	10.8
70°-80°	271.9	4.7
80°-90°	44.2	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°	1732.8	30.2
0°-40°	2812.1	48.9
0°-60°	4811.1	83.7
0°-90°	5746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5746.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2280	2280	2280	2280	2280	
5°	2264	2258	2265	2258	2312	213
15°	2167	2142	2156	2167	2168	604
25°	1938	1948	1980	2006	2002	896
35°	1687	1692	1731	1771	1770	1047
45°	1357	1382	1405	1442	1407	1050
55°	1014	1008	1034	1027	1027	902
65°	623	615	639	615	619	620
75°	259	254	259	240	249	278
85°	32	31	32	31	29	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2279.9	2279.9	2279.9	2279.9	2279.9
2.5°	2299.6	2282.2	2266.0	2284.9	2296.4
5°	2263.7	2258.4	2264.6	2257.8	2312.2
7.5°	2217.2	2237.5	2249.3	2241.9	2245.1
10°	2192.4	2185.4	2211.6	2229.8	2227.2
12.5°	2165.9	2176.5	2178.0	2197.7	2199.5
15°	2167.4	2142.4	2155.6	2166.8	2167.7
17.5°	2083.2	2110.3	2119.4	2145.0	2113.3
20°	2072.9	2053.2	2072.9	2099.1	2095.0
22.5°	2009.6	1987.6	2030.0	2053.2	2051.7
25°	1937.8	1948.4	1980.2	2006.1	2002.0
27.5°	1874.8	1887.2	1932.5	1968.1	1945.2
30°	1826.2	1820.1	1858.3	1890.1	1907.8
32.5°	1739.4	1761.8	1806.5	1838.0	1821.2
35°	1686.7	1691.7	1730.9	1770.9	1769.7
37.5°	1594.6	1617.8	1672.9	1684.1	1673.8
40°	1516.0	1539.2	1589.0	1601.1	1596.1
42.5°	1458.0	1462.1	1504.8	1518.6	1496.6
45°	1357.0	1382.3	1405.3	1441.5	1407.4
47.5°	1271.1	1282.8	1332.3	1342.0	1324.1
50°	1193.1	1197.2	1246.9	1234.9	1223.1
52.5°	1095.0	1112.4	1140.4	1138.0	1124.2
55°	1014.4	1007.6	1034.1	1027.0	1026.7
57.5°	917.5	929.3	951.1	939.9	922.0
60°	826.9	827.2	835.1	822.5	820.1
62.5°	725.9	729.4	731.2	715.6	740.9
65°	623.2	614.9	639.1	614.6	618.8
67.5°	528.7	532.8	530.4	515.1	521.0
70°	432.7	438.0	434.2	416.8	422.1
72.5°	345.0	338.5	342.6	320.9	330.9
75°	259.3	254.0	258.7	240.5	248.7
77.5°	176.6	180.7	177.8	168.1	173.7
80°	116.6	113.3	113.3	107.7	108.9
82.5°	68.0	64.8	63.9	62.1	64.8
85°	31.8	30.9	31.5	30.6	29.4
87.5°	11.5	11.8	11.8	11.2	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)