

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: P561726

Luminaire Tested: FSR-12-4-LD4-2STD-35-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561726
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-12-4-LD4-2STD-35-UNV-80-97-EDD-90
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5312.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

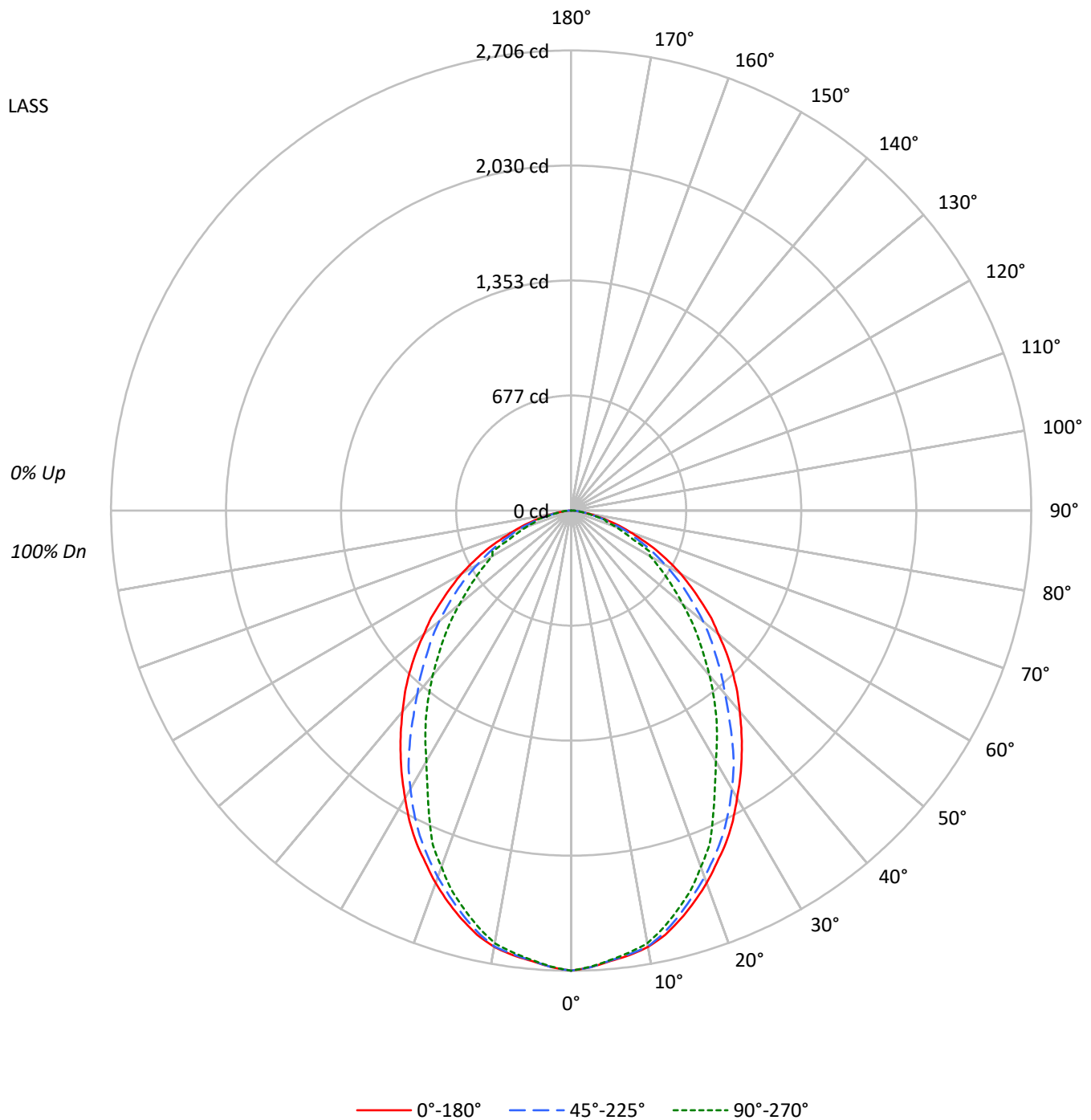
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7282	7282	7282
5°	7182	7174	7166
10°	7120	7112	7060
15°	6928	6859	6763
20°	6674	6566	6387
25°	6399	6260	5870
30°	6065	5871	5288
35°	5744	5426	4891
40°	5417	4945	4450
45°	5107	4571	4024
50°	4728	4243	3588
55°	4373	3845	3214
60°	4007	3434	2879
65°	3526	3008	2550
70°	2904	2633	2166
75°	2309	2016	2114
80°	1551	1454	1358
85°	966	1158	1352

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5107 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.9	4.7
10°-20°	691.3	13.0
20°-30°	957.0	18.0
30°-40°	1020.4	19.2
40°-50°	930.9	17.5
50°-60°	729.3	13.7
60°-70°	475.3	8.9
70°-80°	210.6	4.0
80°-90°	45.2	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°	1900.2	35.8
0°-40°	2920.6	55.0
0°-60°	4580.9	86.2
0°-90°	5312.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5312.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2706	2706	2706	2706	2706	
5°	2659	2656	2656	2653	2653	252
15°	2487	2487	2462	2437	2428	699
25°	2155	2143	2108	2033	1977	990
35°	1749	1736	1652	1526	1489	1093
45°	1342	1314	1201	1101	1057	1034
55°	932	904	820	723	685	836
65°	554	522	472	482	400	546
75°	222	206	194	185	203	238
85°	31	34	38	41	44	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2705.9	2705.9	2705.9	2705.9	2705.9
2.5°	2687.1	2687.1	2687.1	2684.0	2684.0
5°	2658.9	2655.8	2655.8	2652.7	2652.7
7.5°	2637.0	2633.9	2630.8	2627.7	2621.4
10°	2605.8	2605.8	2602.6	2587.0	2583.9
12.5°	2555.7	2552.6	2540.1	2518.2	2511.9
15°	2486.9	2486.9	2461.9	2436.8	2427.5
17.5°	2411.8	2408.7	2377.4	2352.4	2339.9
20°	2330.5	2324.2	2292.9	2252.3	2230.4
22.5°	2239.8	2239.8	2202.2	2149.0	2127.2
25°	2155.3	2142.8	2108.4	2033.3	1977.0
27.5°	2058.3	2039.6	2002.0	1895.7	1830.0
30°	1952.0	1942.6	1889.4	1751.8	1701.7
32.5°	1851.9	1836.2	1779.9	1636.0	1595.4
35°	1748.6	1736.1	1651.7	1526.5	1489.0
37.5°	1645.4	1629.8	1523.4	1423.3	1376.4
40°	1542.2	1523.4	1407.7	1317.0	1266.9
42.5°	1445.2	1420.2	1307.6	1210.6	1154.3
45°	1342.0	1313.8	1201.2	1101.1	1057.3
47.5°	1238.8	1213.7	1110.5	1007.3	957.2
50°	1129.3	1107.4	1013.5	910.3	857.1
52.5°	1038.6	1004.1	913.4	810.2	766.4
55°	932.2	904.0	819.6	722.6	685.1
57.5°	835.2	807.1	728.9	638.1	606.9
60°	744.5	703.8	638.1	559.9	534.9
62.5°	644.4	613.1	556.8	491.1	522.4
65°	553.7	522.4	472.4	481.7	400.4
67.5°	453.6	437.9	394.1	350.4	337.8
70°	369.1	350.4	334.7	287.8	275.3
72.5°	294.0	275.3	253.4	228.4	219.0
75°	222.1	206.5	193.9	184.6	203.3
77.5°	153.3	147.0	137.6	128.3	125.1
80°	100.1	97.0	93.8	90.7	87.6
82.5°	59.4	59.4	59.4	59.4	59.4
85°	31.3	34.4	37.5	40.7	43.8
87.5°	18.8	18.8	21.9	25.0	28.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)