

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: P559921

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559921
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-12-2-LD4-1LO-50-UNV-80-84-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1170.0 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

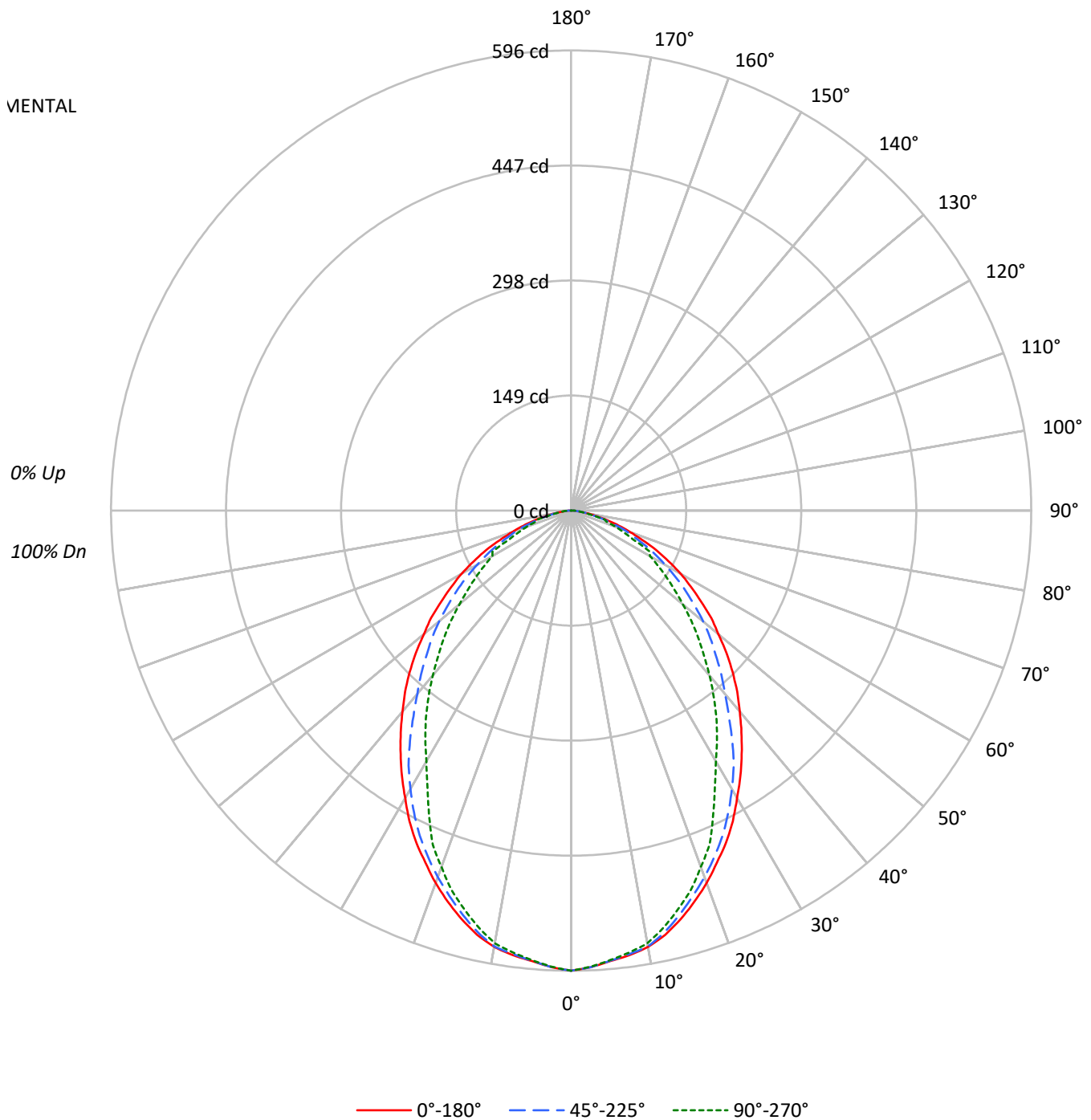
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3208	3208	3208
5°	3164	3160	3157
10°	3136	3133	3110
15°	3052	3021	2979
20°	2940	2892	2814
25°	2819	2758	2586
30°	2672	2586	2329
35°	2530	2390	2155
40°	2387	2178	1960
45°	2250	2014	1773
50°	2082	1869	1581
55°	1926	1694	1416
60°	1765	1513	1268
65°	1554	1324	1123
70°	1279	1160	954
75°	1017	888	932
80°	682	642	598
85°	426	513	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2250 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.5	4.7
10°-20°	152.3	13.0
20°-30°	210.8	18.0
30°-40°	224.8	19.2
40°-50°	205.0	17.5
50°-60°	160.6	13.7
60°-70°	104.7	8.9
70°-80°	46.4	4.0
80°-90°	10.0	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°	418.5	35.8
0°-40°	643.3	55.0
0°-60°	1009.0	86.2
0°-90°	1170.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1170.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	596	596	596	596	596	
5°	586	585	585	584	584	56
15°	548	548	542	537	535	154
25°	475	472	464	448	435	218
35°	385	382	364	336	328	241
45°	296	289	265	242	233	228
55°	205	199	180	159	151	184
65°	122	115	104	106	88	120
75°	49	46	43	41	45	52
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	596.0	596.0	596.0	596.0	596.0
2.5°	591.8	591.8	591.8	591.2	591.2
5°	585.6	585.0	585.0	584.3	584.3
7.5°	580.8	580.1	579.4	578.8	577.4
10°	573.9	573.9	573.2	569.8	569.1
12.5°	562.9	562.2	559.5	554.6	553.3
15°	547.8	547.8	542.2	536.7	534.7
17.5°	531.2	530.5	523.6	518.1	515.4
20°	513.3	511.9	505.0	496.1	491.3
22.5°	493.3	493.3	485.1	473.3	468.5
25°	474.7	472.0	464.4	447.8	435.4
27.5°	453.4	449.2	441.0	417.5	403.1
30°	429.9	427.9	416.2	385.8	374.8
32.5°	407.9	404.4	392.0	360.3	351.4
35°	385.1	382.4	363.8	336.2	328.0
37.5°	362.4	359.0	335.5	313.5	303.2
40°	339.7	335.5	310.0	290.1	279.0
42.5°	318.3	312.8	288.0	266.6	254.2
45°	295.6	289.4	264.6	242.5	232.9
47.5°	272.8	267.3	244.6	221.9	210.8
50°	248.7	243.9	223.2	200.5	188.8
52.5°	228.7	221.2	201.2	178.5	168.8
55°	205.3	199.1	180.5	159.2	150.9
57.5°	184.0	177.8	160.5	140.6	133.7
60°	164.0	155.0	140.6	123.3	117.8
62.5°	141.9	135.0	122.6	108.2	115.1
65°	122.0	115.1	104.0	106.1	88.2
67.5°	99.9	96.5	86.8	77.2	74.4
70°	81.3	77.2	73.7	63.4	60.6
72.5°	64.8	60.6	55.8	50.3	48.2
75°	48.9	45.5	42.7	40.7	44.8
77.5°	33.8	32.4	30.3	28.2	27.6
80°	22.0	21.4	20.7	20.0	19.3
82.5°	13.1	13.1	13.1	13.1	13.1
85°	6.9	7.6	8.3	9.0	9.6
87.5°	4.1	4.1	4.8	5.5	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)