

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: P559815

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559815
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-35-UNV-81-87-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1015.0 lumens
Efficiency: N/A
Efficacy: 86.8 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

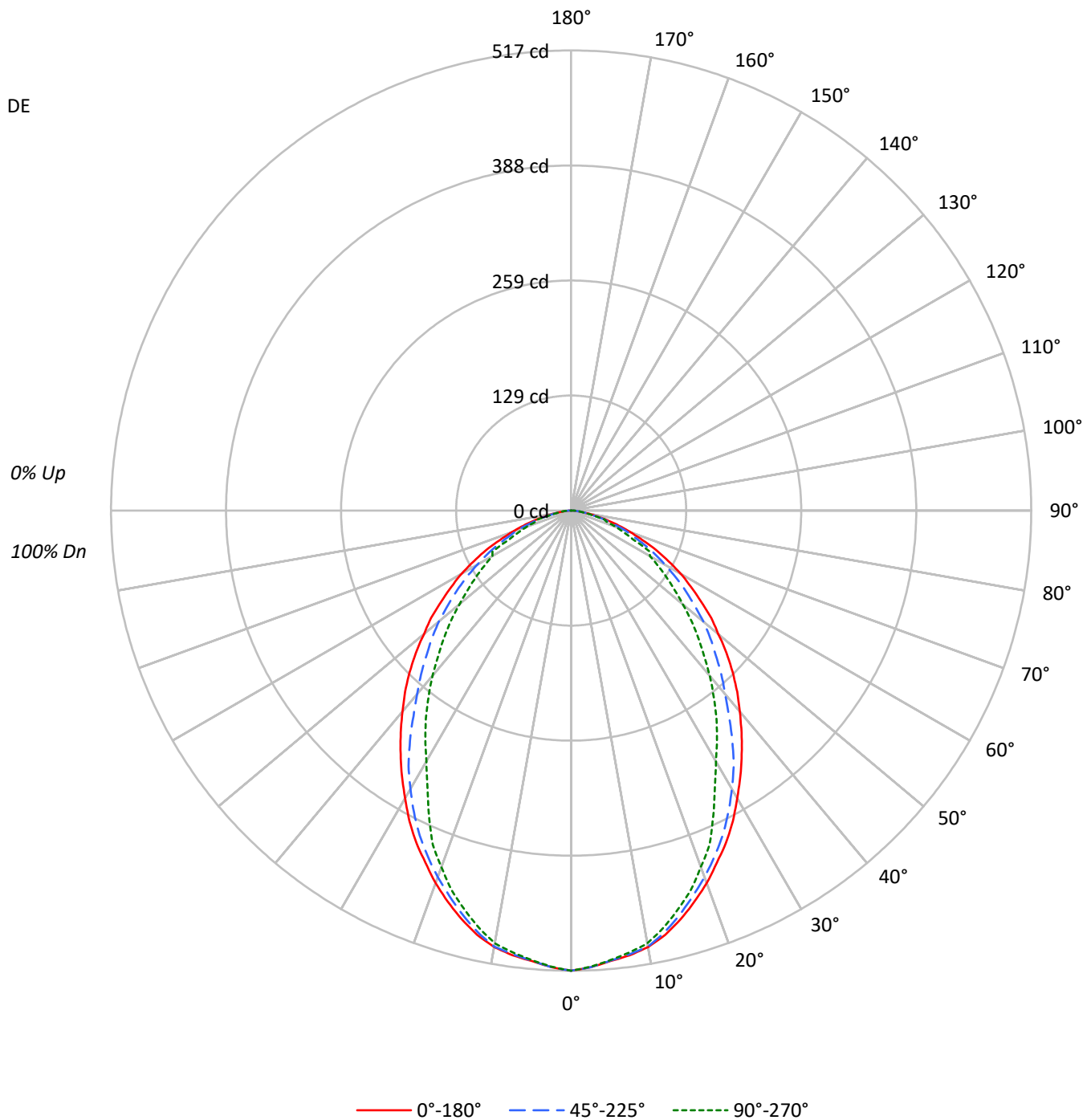
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	2782	2782	2782
5°	2745	2742	2739
10°	2721	2718	2698
15°	2648	2621	2584
20°	2550	2509	2441
25°	2445	2393	2244
30°	2318	2243	2021
35°	2195	2074	1869
40°	2070	1890	1701
45°	1952	1747	1537
50°	1807	1622	1371
55°	1671	1469	1228
60°	1532	1312	1100
65°	1347	1150	974
70°	1109	1007	828
75°	882	771	809
80°	592	555	518
85°	371	445	519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1952 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	4.7
10°-20°	132.1	13.0
20°-30°	182.9	18.0
30°-40°	195.0	19.2
40°-50°	177.9	17.5
50°-60°	139.4	13.7
60°-70°	90.8	8.9
70°-80°	40.2	4.0
80°-90°	8.7	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°	363.1	35.8
0°-40°	558.1	55.0
0°-60°	875.3	86.2
0°-90°	1015.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1015.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	517	517	517	517	517	
5°	508	508	508	507	507	48
15°	475	475	470	466	464	134
25°	412	409	403	388	378	189
35°	334	332	316	292	284	209
45°	256	251	230	210	202	198
55°	178	173	157	138	131	160
65°	106	100	90	92	76	104
75°	42	39	37	35	39	45
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	517.0	517.0	517.0	517.0	517.0
2.5°	513.4	513.4	513.4	512.8	512.8
5°	508.1	507.5	507.5	506.9	506.9
7.5°	503.9	503.3	502.7	502.1	500.9
10°	497.9	497.9	497.3	494.3	493.7
12.5°	488.3	487.7	485.3	481.2	480.0
15°	475.2	475.2	470.4	465.6	463.8
17.5°	460.8	460.2	454.3	449.5	447.1
20°	445.3	444.1	438.1	430.4	426.2
22.5°	428.0	428.0	420.8	410.6	406.4
25°	411.8	409.4	402.9	388.5	377.8
27.5°	393.3	389.7	382.5	362.2	349.7
30°	373.0	371.2	361.0	334.7	325.2
32.5°	353.8	350.9	340.1	312.6	304.8
35°	334.1	331.7	315.6	291.7	284.5
37.5°	314.4	311.4	291.1	272.0	263.0
40°	294.7	291.1	269.0	251.6	242.1
42.5°	276.1	271.4	249.8	231.3	220.6
45°	256.4	251.0	229.5	210.4	202.0
47.5°	236.7	231.9	212.2	192.5	182.9
50°	215.8	211.6	193.7	173.9	163.8
52.5°	198.4	191.9	174.5	154.8	146.4
55°	178.1	172.7	156.6	138.1	130.9
57.5°	159.6	154.2	139.3	121.9	116.0
60°	142.3	134.5	121.9	107.0	102.2
62.5°	123.1	117.2	106.4	93.8	99.8
65°	105.8	99.8	90.3	92.0	76.5
67.5°	86.7	83.7	75.3	66.9	64.6
70°	70.5	66.9	64.0	55.0	52.6
72.5°	56.2	52.6	48.4	43.6	41.8
75°	42.4	39.4	37.1	35.3	38.9
77.5°	29.3	28.1	26.3	24.5	23.9
80°	19.1	18.5	17.9	17.3	16.7
82.5°	11.4	11.4	11.4	11.4	11.4
85°	6.0	6.6	7.2	7.8	8.4
87.5°	3.6	3.6	4.2	4.8	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)