

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: P559237

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559237
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-12-1-LD4-2LO-35-UNV-81-86-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1082.0 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

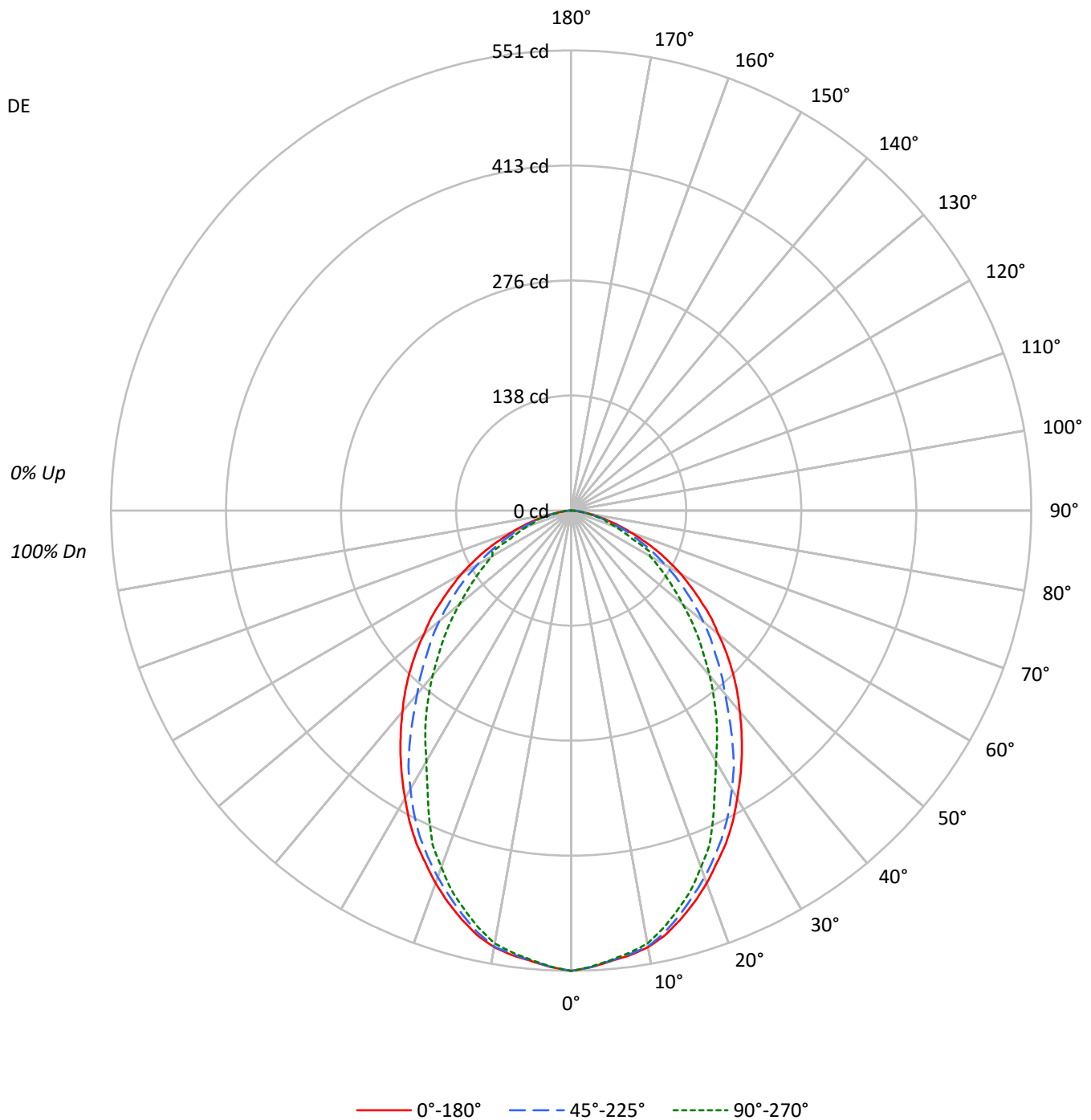
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5933	5933	5933
5°	5852	5846	5838
10°	5802	5794	5752
15°	5645	5589	5509
20°	5438	5349	5204
25°	5214	5101	4783
30°	4942	4784	4308
35°	4681	4420	3985
40°	4414	4029	3627
45°	4160	3725	3279
50°	3852	3456	2924
55°	3564	3132	2618
60°	3264	2799	2347
65°	2873	2450	2078
70°	2367	2146	1766
75°	1880	1643	1722
80°	1265	1184	1103
85°	790	939	1099

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4160 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.3	4.7
10°-20°	140.8	13.0
20°-30°	194.9	18.0
30°-40°	207.9	19.2
40°-50°	189.6	17.5
50°-60°	148.6	13.7
60°-70°	96.8	8.9
70°-80°	42.9	4.0
80°-90°	9.2	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°	387.0	35.8
0°-40°	594.9	55.0
0°-60°	933.1	86.2
0°-90°	1082.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1082.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	551	551	551	551	551	
5°	542	541	541	540	540	51
15°	507	507	502	496	494	142
25°	439	436	430	414	403	202
35°	356	354	336	311	303	223
45°	273	268	245	224	215	211
55°	190	184	167	147	140	170
65°	113	106	96	98	82	111
75°	45	42	40	38	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	551.2	551.2	551.2	551.2	551.2
2.5°	547.3	547.3	547.3	546.7	546.7
5°	541.6	541.0	541.0	540.3	540.3
7.5°	537.1	536.5	535.9	535.2	534.0
10°	530.8	530.8	530.1	526.9	526.3
12.5°	520.6	519.9	517.4	512.9	511.7
15°	506.6	506.6	501.5	496.4	494.4
17.5°	491.3	490.6	484.3	479.2	476.6
20°	474.7	473.4	467.0	458.8	454.3
22.5°	456.2	456.2	448.6	437.7	433.3
25°	439.0	436.5	429.5	414.2	402.7
27.5°	419.3	415.4	407.8	386.1	372.7
30°	397.6	395.7	384.9	356.8	346.6
32.5°	377.2	374.0	362.6	333.2	325.0
35°	356.2	353.6	336.4	310.9	303.3
37.5°	335.2	332.0	310.3	289.9	280.4
40°	314.1	310.3	286.7	268.3	258.1
42.5°	294.4	289.3	266.3	246.6	235.1
45°	273.3	267.6	244.7	224.3	215.4
47.5°	252.3	247.2	226.2	205.2	195.0
50°	230.0	225.6	206.4	185.4	174.6
52.5°	211.5	204.5	186.1	165.0	156.1
55°	189.9	184.1	166.9	147.2	139.5
57.5°	170.1	164.4	148.5	130.0	123.6
60°	151.6	143.4	130.0	114.1	109.0
62.5°	131.3	124.9	113.4	100.0	106.4
65°	112.8	106.4	96.2	98.1	81.6
67.5°	92.4	89.2	80.3	71.4	68.8
70°	75.2	71.4	68.2	58.6	56.1
72.5°	59.9	56.1	51.6	46.5	44.6
75°	45.2	42.1	39.5	37.6	41.4
77.5°	31.2	29.9	28.0	26.1	25.5
80°	20.4	19.8	19.1	18.5	17.8
82.5°	12.1	12.1	12.1	12.1	12.1
85°	6.4	7.0	7.6	8.3	8.9
87.5°	3.8	3.8	4.5	5.1	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)