

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: P559032

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559032
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-LD4-2HI-35-UNV-80-88-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1364.0 lumens
Efficiency: N/A
Efficacy: 63.1 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

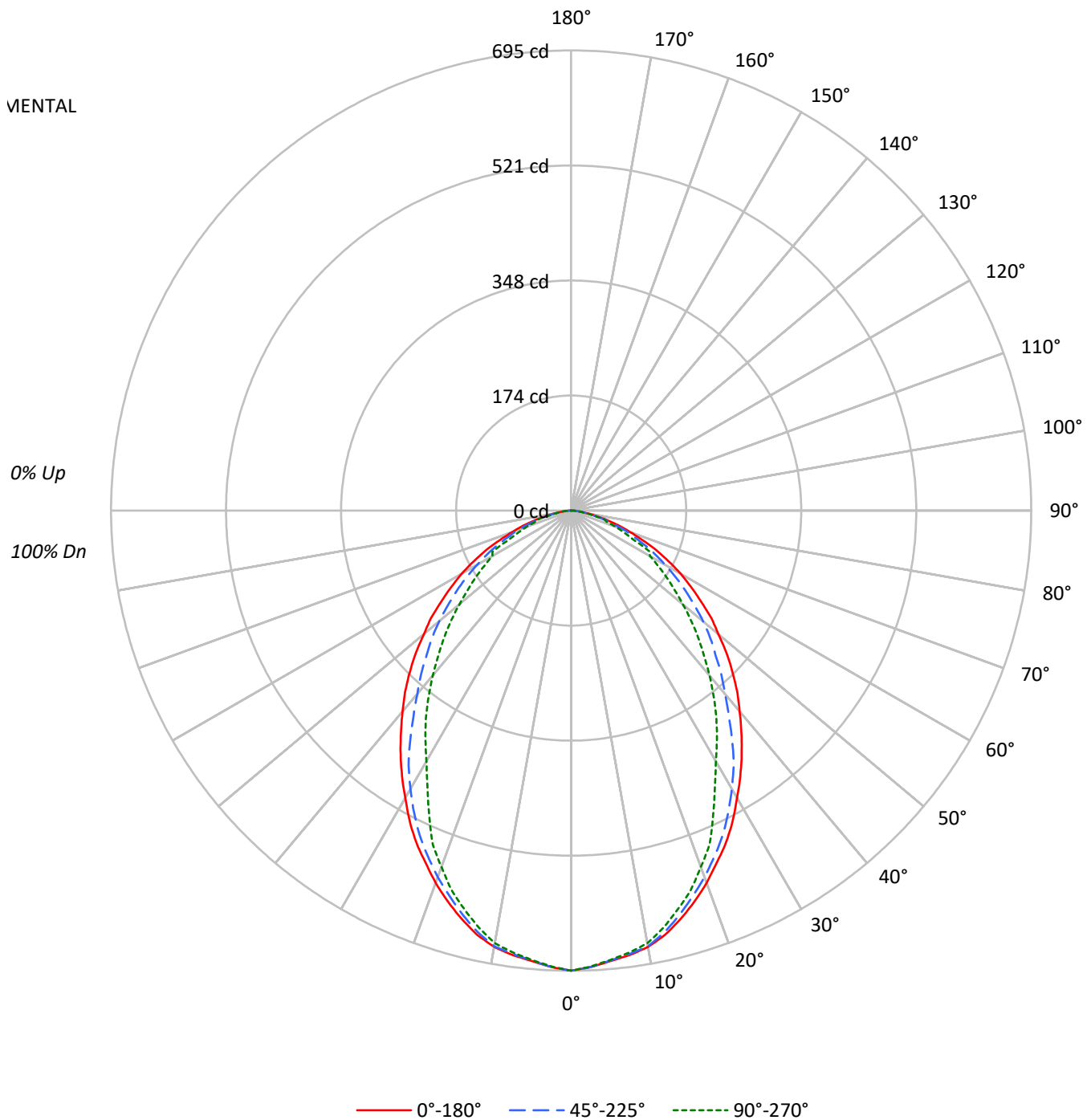
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7479	7479	7479
5°	7378	7369	7359
10°	7313	7304	7252
15°	7116	7045	6946
20°	6855	6745	6560
25°	6573	6430	6029
30°	6229	6031	5432
35°	5900	5573	5024
40°	5564	5080	4571
45°	5246	4695	4133
50°	4856	4359	3686
55°	4493	3948	3301
60°	4116	3528	2958
65°	3622	3089	2618
70°	2984	2703	2225
75°	2371	2071	2171
80°	1593	1494	1395
85°	988	1186	1383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5246 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.7	4.7
10°-20°	177.5	13.0
20°-30°	245.7	18.0
30°-40°	262.0	19.2
40°-50°	239.1	17.5
50°-60°	187.3	13.7
60°-70°	122.1	8.9
70°-80°	54.1	4.0
80°-90°	11.6	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°	487.9	35.8
0°-40°	749.9	55.0
0°-60°	1176.3	86.2
0°-90°	1364.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1364.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	683	682	682	681	681	65
15°	639	639	632	626	623	180
25°	553	550	541	522	508	254
35°	449	446	424	392	382	281
45°	345	337	308	283	272	265
55°	239	232	210	186	176	215
65°	142	134	121	124	103	140
75°	57	53	50	47	52	61
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	694.8	694.8	694.8	694.8	694.8
2.5°	690.0	690.0	690.0	689.2	689.2
5°	682.8	682.0	682.0	681.1	681.1
7.5°	677.1	676.3	675.5	674.7	673.1
10°	669.1	669.1	668.3	664.3	663.5
12.5°	656.2	655.4	652.2	646.6	645.0
15°	638.6	638.6	632.2	625.7	623.3
17.5°	619.3	618.5	610.5	604.0	600.8
20°	598.4	596.8	588.8	578.3	572.7
22.5°	575.1	575.1	565.5	551.8	546.2
25°	553.4	550.2	541.4	522.1	507.6
27.5°	528.5	523.7	514.1	486.8	469.9
30°	501.2	498.8	485.2	449.8	437.0
32.5°	475.5	471.5	457.0	420.1	409.7
35°	449.0	445.8	424.1	392.0	382.3
37.5°	422.5	418.5	391.2	365.5	353.4
40°	396.0	391.2	361.5	338.2	325.3
42.5°	371.1	364.7	335.8	310.9	296.4
45°	344.6	337.4	308.4	282.7	271.5
47.5°	318.1	311.7	285.2	258.6	245.8
50°	290.0	284.3	260.3	233.7	220.1
52.5°	266.7	257.8	234.5	208.0	196.8
55°	239.4	232.1	210.4	185.5	175.9
57.5°	214.5	207.2	187.2	163.9	155.8
60°	191.2	180.7	163.9	143.8	137.4
62.5°	165.5	157.4	143.0	126.1	134.1
65°	142.2	134.1	121.3	123.7	102.8
67.5°	116.5	112.5	101.2	90.0	86.8
70°	94.8	90.0	85.9	73.9	70.7
72.5°	75.5	70.7	65.1	58.6	56.2
75°	57.0	53.0	49.8	47.4	52.2
77.5°	39.4	37.8	35.3	32.9	32.1
80°	25.7	24.9	24.1	23.3	22.5
82.5°	15.3	15.3	15.3	15.3	15.3
85°	8.0	8.8	9.6	10.4	11.2
87.5°	4.8	4.8	5.6	6.4	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)