

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: P559990

Luminaire Tested: FSR-12-2-LD4-1STD-35-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559990
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-LD4-1STD-35-UNV-80-87-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1197.0 lumens
Efficiency: N/A
Efficacy: 72.1 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

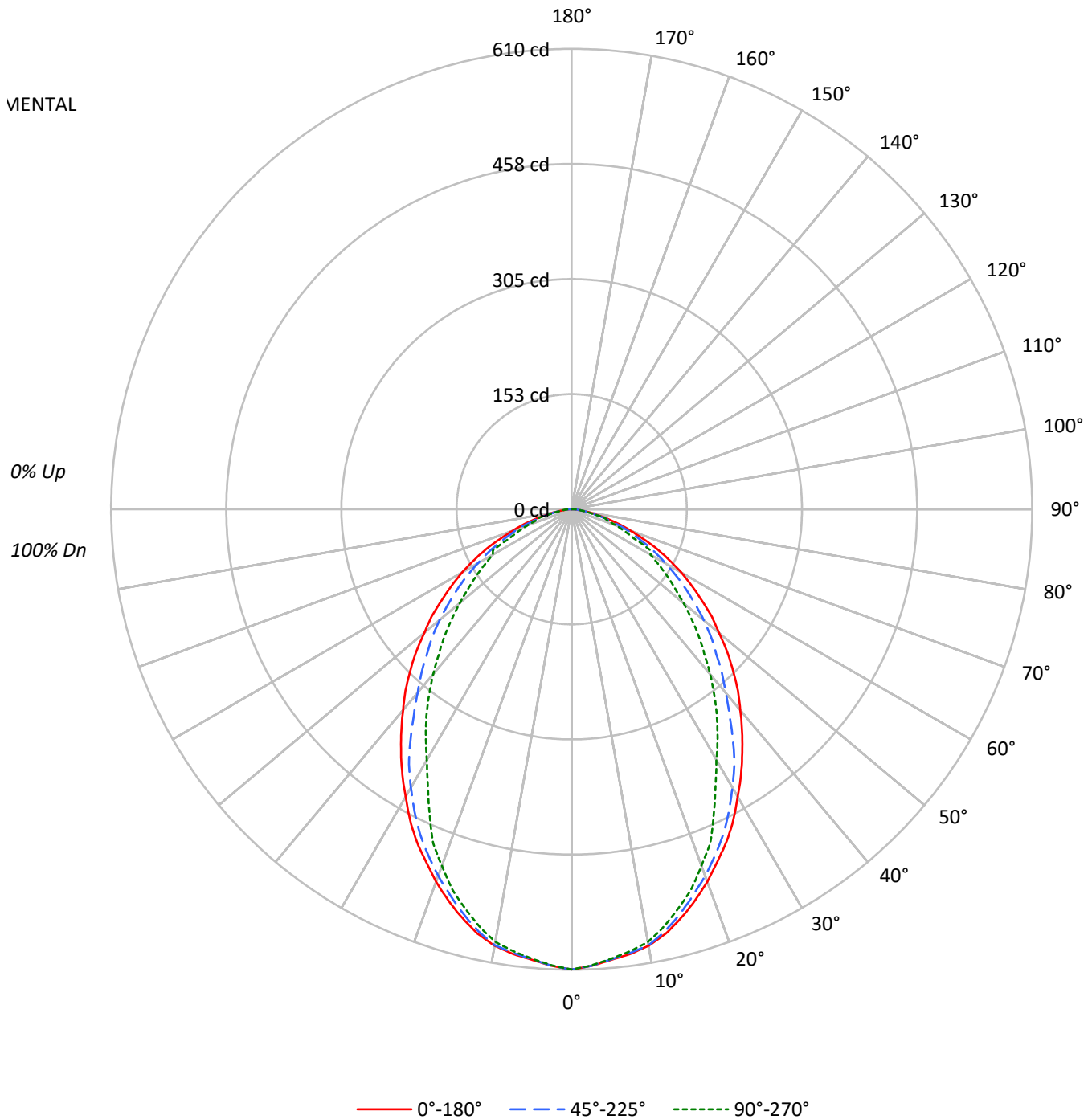
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	3281	3281	3281
5°	3237	3233	3230
10°	3209	3205	3182
15°	3122	3091	3048
20°	3007	2959	2879
25°	2884	2821	2646
30°	2734	2646	2383
35°	2589	2445	2204
40°	2441	2229	2006
45°	2302	2060	1814
50°	2131	1912	1617
55°	1971	1733	1449
60°	1806	1548	1297
65°	1589	1355	1149
70°	1309	1186	976
75°	1040	909	952
80°	700	654	611
85°	432	525	611

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2302 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.8	4.7
10°-20°	155.8	13.0
20°-30°	215.7	18.0
30°-40°	230.0	19.2
40°-50°	209.8	17.5
50°-60°	164.3	13.7
60°-70°	107.1	8.9
70°-80°	47.4	4.0
80°-90°	10.2	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°	428.2	35.8
0°-40°	658.1	55.0
0°-60°	1032.2	86.2
0°-90°	1197.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1197.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	610	610	610	610	610	
5°	599	598	598	598	598	57
15°	560	560	555	549	547	158
25°	486	483	475	458	446	223
35°	394	391	372	344	336	246
45°	302	296	271	248	238	233
55°	210	204	185	163	154	188
65°	125	118	106	109	90	123
75°	50	46	44	42	46	54
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°	609.7	609.7	609.7	609.7	609.7
2.5°	605.5	605.5	605.5	604.8	604.8
5°	599.2	598.5	598.5	597.8	597.8
7.5°	594.2	593.5	592.8	592.1	590.7
10°	587.2	587.2	586.5	582.9	582.2
12.5°	575.9	575.2	572.4	567.4	566.0
15°	560.4	560.4	554.8	549.1	547.0
17.5°	543.5	542.8	535.7	530.1	527.3
20°	525.1	523.7	516.7	507.5	502.6
22.5°	504.7	504.7	496.2	484.3	479.3
25°	485.7	482.9	475.1	458.2	445.5
27.5°	463.8	459.6	451.1	427.2	412.4
30°	439.9	437.7	425.8	394.7	383.5
32.5°	417.3	413.8	401.1	368.7	359.5
35°	394.0	391.2	372.2	344.0	335.5
37.5°	370.8	367.3	343.3	320.7	310.2
40°	347.5	343.3	317.2	296.8	285.5
42.5°	325.7	320.0	294.6	272.8	260.1
45°	302.4	296.1	270.7	248.1	238.3
47.5°	279.1	273.5	250.2	227.0	215.7
50°	254.5	249.5	228.4	205.1	193.1
52.5°	234.0	226.3	205.8	182.6	172.7
55°	210.1	203.7	184.7	162.8	154.4
57.5°	188.2	181.9	164.2	143.8	136.7
60°	167.8	158.6	143.8	126.2	120.5
62.5°	145.2	138.2	125.5	110.7	117.7
65°	124.8	117.7	106.4	108.6	90.2
67.5°	102.2	98.7	88.8	78.9	76.1
70°	83.2	78.9	75.4	64.9	62.0
72.5°	66.3	62.0	57.1	51.5	49.3
75°	50.0	46.5	43.7	41.6	45.8
77.5°	34.5	33.1	31.0	28.9	28.2
80°	22.6	21.9	21.1	20.4	19.7
82.5°	13.4	13.4	13.4	13.4	13.4
85°	7.0	7.8	8.5	9.2	9.9
87.5°	4.2	4.2	4.9	5.6	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)