

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: P559218

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559218
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-80-85-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 964.0 lumens
Efficiency: N/A
Efficacy: 82.4 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

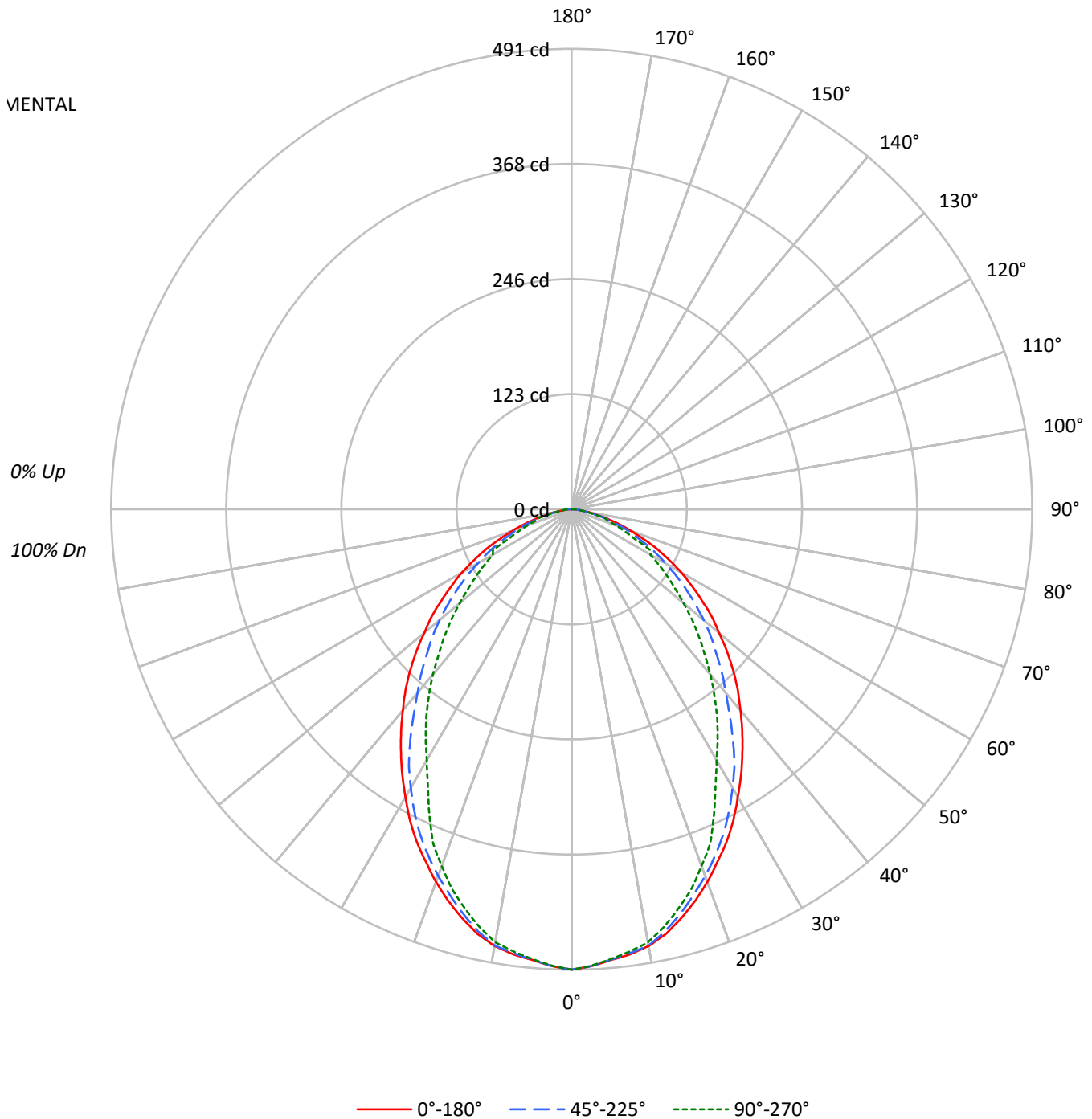
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5285	5285	5285
5°	5213	5208	5202
10°	5169	5162	5125
15°	5029	4979	4909
20°	4844	4766	4637
25°	4645	4544	4261
30°	4402	4262	3838
35°	4169	3938	3551
40°	3933	3590	3230
45°	3707	3318	2921
50°	3431	3080	2604
55°	3175	2791	2333
60°	2908	2493	2090
65°	2560	2183	1852
70°	2109	1910	1574
75°	1676	1464	1535
80°	1128	1054	986
85°	704	840	976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3707 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	4.7
10°-20°	125.4	13.0
20°-30°	173.7	18.0
30°-40°	185.2	19.2
40°-50°	168.9	17.5
50°-60°	132.4	13.7
60°-70°	86.3	8.9
70°-80°	38.2	4.0
80°-90°	8.2	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°	344.8	35.8
0°-40°	530.0	55.0
0°-60°	831.3	86.2
0°-90°	964.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	964.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	491	491	491	491	491	
5°	482	482	482	481	481	46
15°	451	451	447	442	440	127
25°	391	389	383	369	359	180
35°	317	315	300	277	270	198
45°	244	238	218	200	192	188
55°	169	164	149	131	124	152
65°	100	95	86	87	73	99
75°	40	38	35	34	37	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	491.0	491.0	491.0	491.0	491.0
2.5°	487.6	487.6	487.6	487.1	487.1
5°	482.5	482.0	482.0	481.4	481.4
7.5°	478.6	478.0	477.4	476.9	475.7
10°	472.9	472.9	472.3	469.5	468.9
12.5°	463.8	463.2	461.0	457.0	455.9
15°	451.3	451.3	446.8	442.2	440.5
17.5°	437.7	437.1	431.4	426.9	424.6
20°	422.9	421.8	416.1	408.7	404.8
22.5°	406.5	406.5	399.7	390.0	386.0
25°	391.1	388.9	382.6	369.0	358.8
27.5°	373.5	370.1	363.3	344.0	332.1
30°	354.2	352.5	342.9	317.9	308.8
32.5°	336.1	333.2	323.0	296.9	289.5
35°	317.3	315.1	299.7	277.0	270.2
37.5°	298.6	295.8	276.5	258.3	249.8
40°	279.9	276.5	255.5	239.0	229.9
42.5°	262.3	257.7	237.3	219.7	209.5
45°	243.5	238.4	218.0	199.8	191.9
47.5°	224.8	220.3	201.5	182.8	173.7
50°	204.9	201.0	183.9	165.2	155.5
52.5°	188.5	182.2	165.8	147.0	139.1
55°	169.2	164.1	148.7	131.1	124.3
57.5°	151.6	146.5	132.3	115.8	110.1
60°	135.1	127.7	115.8	101.6	97.1
62.5°	116.9	111.3	101.0	89.1	94.8
65°	100.5	94.8	85.7	87.4	72.7
67.5°	82.3	79.5	71.5	63.6	61.3
70°	67.0	63.6	60.7	52.2	50.0
72.5°	53.4	50.0	46.0	41.4	39.7
75°	40.3	37.5	35.2	33.5	36.9
77.5°	27.8	26.7	25.0	23.3	22.7
80°	18.2	17.6	17.0	16.5	15.9
82.5°	10.8	10.8	10.8	10.8	10.8
85°	5.7	6.2	6.8	7.4	7.9
87.5°	3.4	3.4	4.0	4.5	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)