

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: P559416

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559416
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-LD4-2STD-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: 1112.0 lumens
Efficiency: N/A
Efficacy: 67.0 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

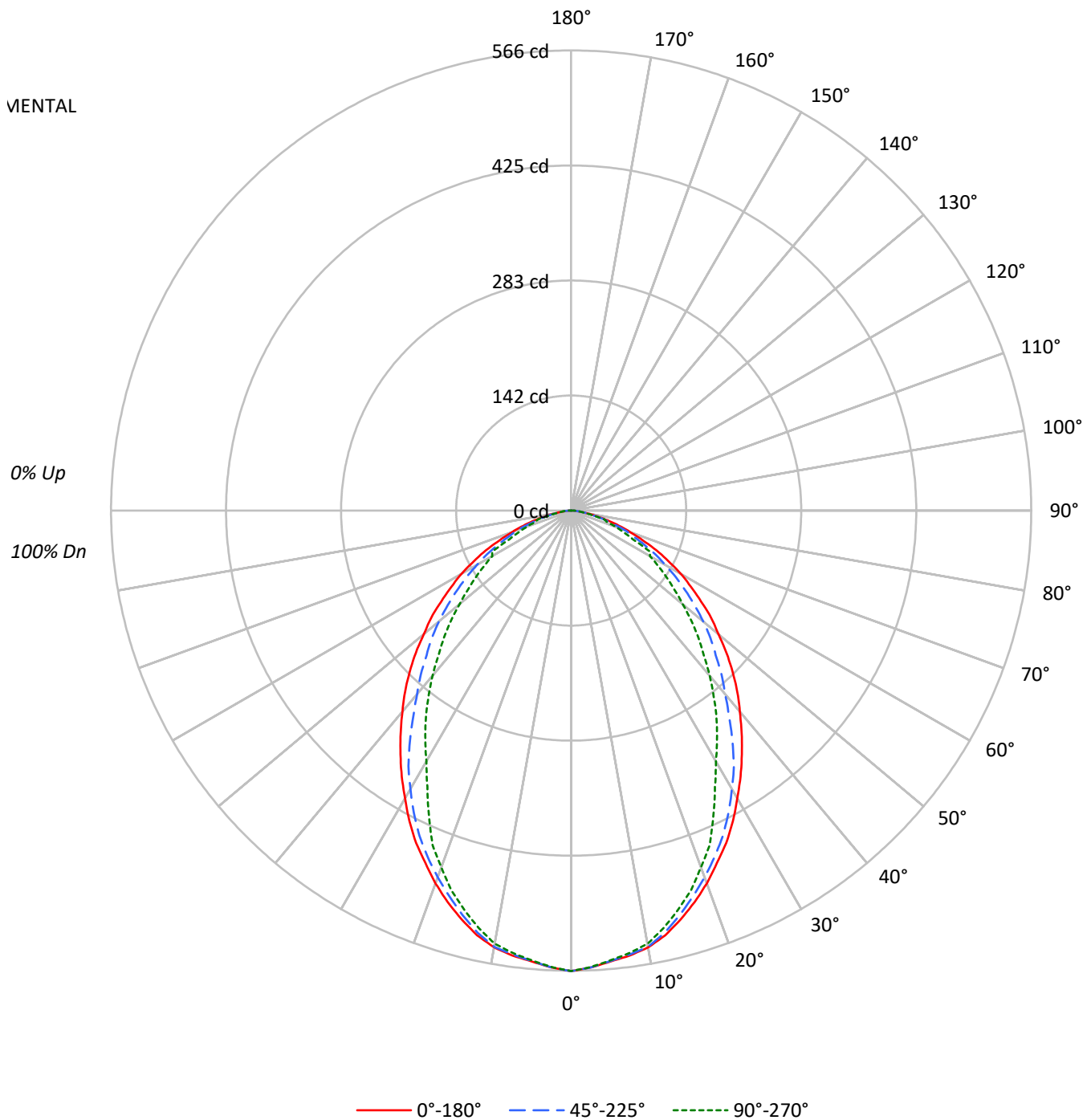
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6097	6097	6097
5°	6014	6008	6000
10°	5962	5955	5912
15°	5801	5743	5663
20°	5589	5498	5348
25°	5359	5242	4916
30°	5079	4916	4427
35°	4811	4544	4096
40°	4536	4141	3726
45°	4276	3828	3369
50°	3959	3553	3004
55°	3661	3220	2691
60°	3356	2876	2411
65°	2952	2519	2134
70°	2433	2206	1813
75°	1934	1688	1772
80°	1302	1215	1134
85°	803	976	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4276 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	4.7
10°-20°	144.7	13.0
20°-30°	200.3	18.0
30°-40°	213.6	19.2
40°-50°	194.9	17.5
50°-60°	152.7	13.7
60°-70°	99.5	8.9
70°-80°	44.1	4.0
80°-90°	9.4	0.8
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°	397.8	35.8
0°-40°	611.4	55.0
0°-60°	958.9	86.2
0°-90°	1112.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1112.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	557	556	556	555	555	53
15°	521	521	515	510	508	146
25°	451	449	441	426	414	207
35°	366	363	346	320	312	229
45°	281	275	252	230	221	216
55°	195	189	172	151	143	175
65°	116	109	99	101	84	114
75°	46	43	41	39	43	50
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°	566.4	566.4	566.4	566.4	566.4
2.5°	562.5	562.5	562.5	561.9	561.9
5°	556.6	556.0	556.0	555.3	555.3
7.5°	552.0	551.4	550.7	550.1	548.8
10°	545.5	545.5	544.8	541.6	540.9
12.5°	535.0	534.4	531.7	527.1	525.8
15°	520.6	520.6	515.4	510.1	508.2
17.5°	504.9	504.2	497.7	492.4	489.8
20°	487.9	486.5	480.0	471.5	466.9
22.5°	468.9	468.9	461.0	449.9	445.3
25°	451.2	448.6	441.4	425.6	413.9
27.5°	430.9	427.0	419.1	396.8	383.1
30°	408.6	406.7	395.5	366.7	356.2
32.5°	387.7	384.4	372.6	342.5	334.0
35°	366.1	363.4	345.8	319.6	311.7
37.5°	344.4	341.2	318.9	298.0	288.1
40°	322.8	318.9	294.7	275.7	265.2
42.5°	302.5	297.3	273.7	253.4	241.6
45°	280.9	275.0	251.5	230.5	221.3
47.5°	259.3	254.1	232.5	210.9	200.4
50°	236.4	231.8	212.2	190.6	179.4
52.5°	217.4	210.2	191.2	169.6	160.4
55°	195.1	189.2	171.6	151.3	143.4
57.5°	174.8	168.9	152.6	133.6	127.0
60°	155.9	147.3	133.6	117.2	112.0
62.5°	134.9	128.3	116.6	102.8	109.4
65°	115.9	109.4	98.9	100.8	83.8
67.5°	95.0	91.7	82.5	73.3	70.7
70°	77.3	73.3	70.1	60.2	57.6
72.5°	61.6	57.6	53.0	47.8	45.8
75°	46.5	43.2	40.6	38.6	42.6
77.5°	32.1	30.8	28.8	26.8	26.2
80°	21.0	20.3	19.6	19.0	18.3
82.5°	12.4	12.4	12.4	12.4	12.4
85°	6.5	7.2	7.9	8.5	9.2
87.5°	3.9	3.9	4.6	5.2	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)