

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: P559998

Luminaire Tested: FSR-12-2-LD4-1STD-35-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559998
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-80-97-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1220.0 lumens
Efficiency: N/A
Efficacy: 73.5 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

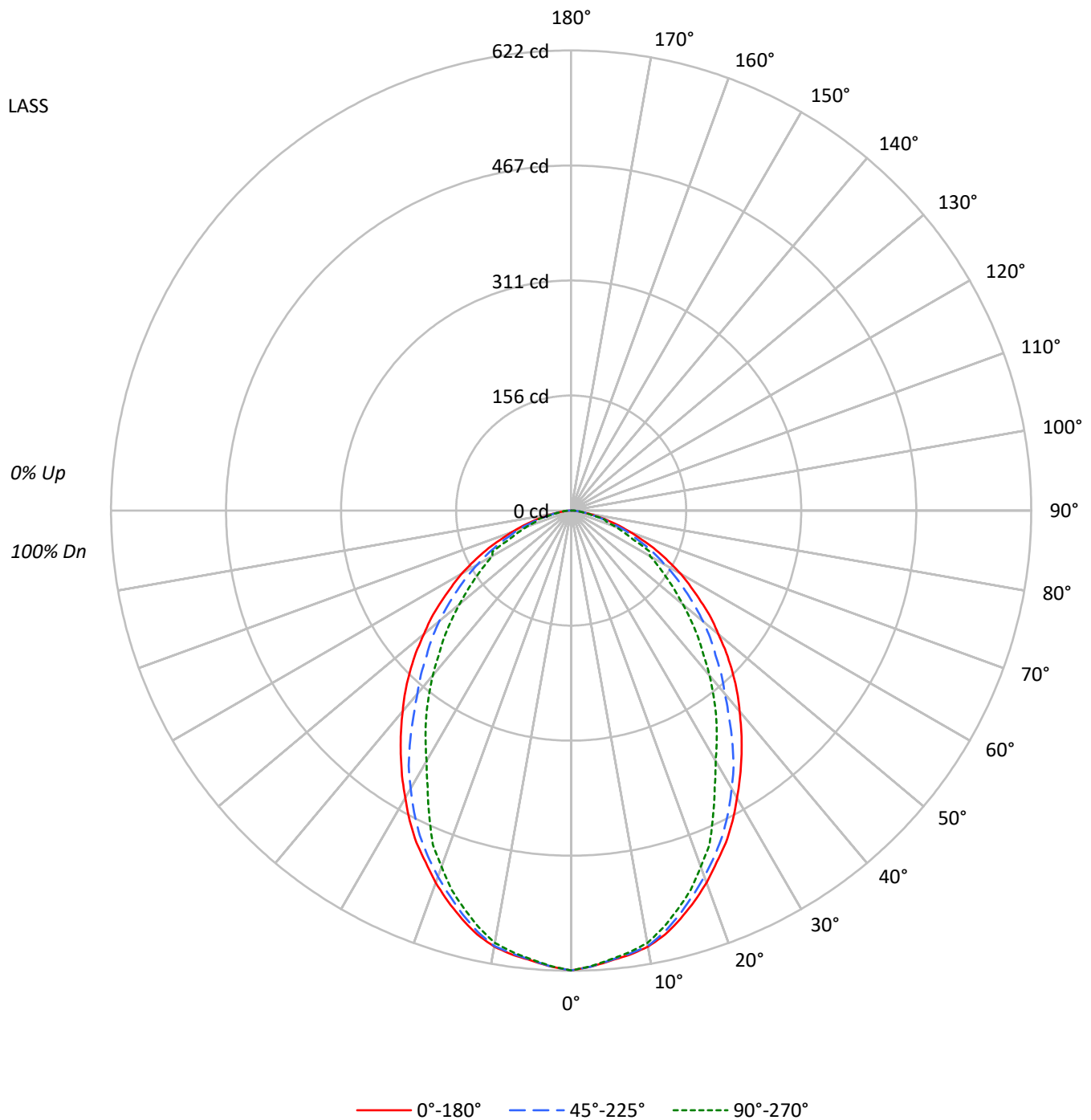
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3345	3345	3345
5°	3299	3296	3291
10°	3271	3266	3243
15°	3183	3150	3106
20°	3065	3016	2934
25°	2939	2875	2697
30°	2786	2696	2429
35°	2639	2492	2247
40°	2488	2271	2044
45°	2346	2100	1848
50°	2172	1949	1649
55°	2009	1766	1476
60°	1841	1578	1323
65°	1620	1382	1172
70°	1334	1210	995
75°	1061	925	971
80°	713	669	623
85°	445	531	624

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2346 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.8	4.7
10°-20°	158.8	13.0
20°-30°	219.8	18.0
30°-40°	234.4	19.2
40°-50°	213.8	17.5
50°-60°	167.5	13.7
60°-70°	109.2	8.9
70°-80°	48.4	4.0
80°-90°	10.4	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°	436.4	35.8
0°-40°	670.8	55.0
0°-60°	1052.1	86.2
0°-90°	1220.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1220.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	611	610	610	609	609	58
15°	571	571	565	560	558	161
25°	495	492	484	467	454	227
35°	402	399	379	351	342	251
45°	308	302	276	253	243	237
55°	214	208	188	166	157	192
65°	127	120	108	111	92	125
75°	51	47	44	42	47	55
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	621.5	621.5	621.5	621.5	621.5
2.5°	617.1	617.1	617.1	616.4	616.4
5°	610.7	610.0	610.0	609.2	609.2
7.5°	605.6	604.9	604.2	603.5	602.1
10°	598.5	598.5	597.7	594.2	593.4
12.5°	587.0	586.2	583.4	578.3	576.9
15°	571.2	571.2	565.4	559.7	557.5
17.5°	553.9	553.2	546.0	540.3	537.4
20°	535.2	533.8	526.6	517.3	512.2
22.5°	514.4	514.4	505.8	493.6	488.5
25°	495.0	492.1	484.2	467.0	454.1
27.5°	472.7	468.4	459.8	435.4	420.3
30°	448.3	446.2	433.9	402.3	390.8
32.5°	425.3	421.7	408.8	375.7	366.4
35°	401.6	398.7	379.3	350.6	342.0
37.5°	377.9	374.3	349.9	326.9	316.1
40°	354.2	349.9	323.3	302.5	291.0
42.5°	331.9	326.2	300.3	278.0	265.1
45°	308.2	301.7	275.9	252.9	242.8
47.5°	284.5	278.8	255.0	231.3	219.8
50°	259.4	254.3	232.8	209.1	196.9
52.5°	238.5	230.6	209.8	186.1	176.0
55°	214.1	207.6	188.2	166.0	157.3
57.5°	191.8	185.4	167.4	146.6	139.4
60°	171.0	161.6	146.6	128.6	122.9
62.5°	148.0	140.8	127.9	112.8	120.0
65°	127.2	120.0	108.5	110.6	92.0
67.5°	104.2	100.6	90.5	80.5	77.6
70°	84.8	80.5	76.9	66.1	63.2
72.5°	67.5	63.2	58.2	52.4	50.3
75°	51.0	47.4	44.5	42.4	46.7
77.5°	35.2	33.8	31.6	29.5	28.7
80°	23.0	22.3	21.6	20.8	20.1
82.5°	13.7	13.7	13.7	13.7	13.7
85°	7.2	7.9	8.6	9.3	10.1
87.5°	4.3	4.3	5.0	5.7	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)