

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: P559205

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-93-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559205
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-50-UNV-93-86-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1925.0 lumens
Efficiency: N/A
Efficacy: 89.1 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

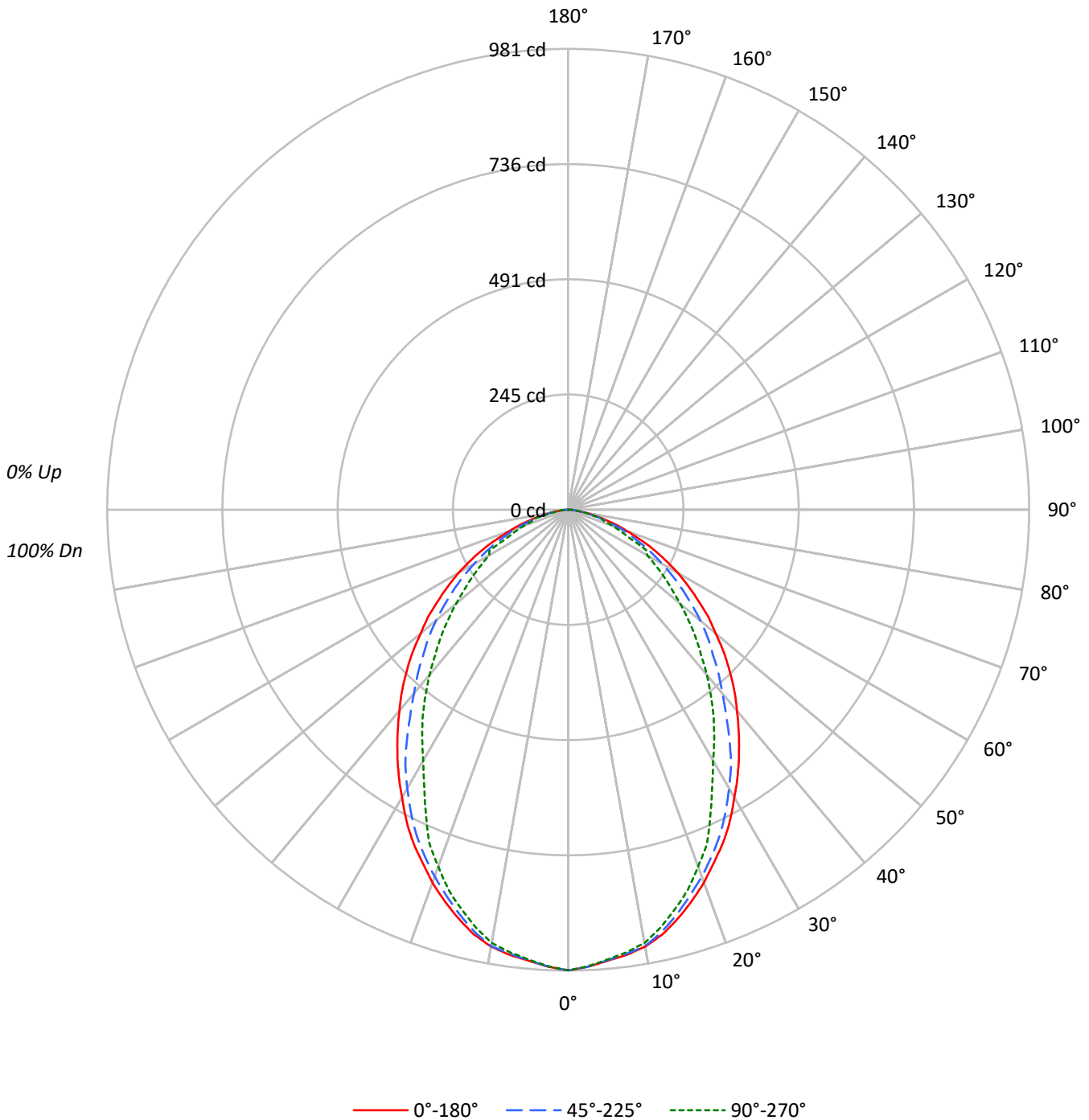
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10555	10555	10555
5°	10412	10399	10387
10°	10321	10309	10235
15°	10043	9941	9803
20°	9674	9518	9259
25°	9277	9075	8508
30°	8792	8510	7665
35°	8327	7864	7091
40°	7853	7168	6451
45°	7403	6626	5833
50°	6852	6151	5201
55°	6339	5574	4660
60°	5808	4979	4172
65°	5109	4360	3696
70°	4211	3818	3141
75°	3348	2924	3065
80°	2250	2108	1965
85°	1396	1680	1964

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7403 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	4.7
10°-20°	250.5	13.0
20°-30°	346.8	18.0
30°-40°	369.8	19.2
40°-50°	337.4	17.5
50°-60°	264.3	13.7
60°-70°	172.3	8.9
70°-80°	76.3	4.0
80°-90°	16.4	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°	688.6	35.8
0°-40°	1058.4	55.0
0°-60°	1660.0	86.2
0°-90°	1925.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1925.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	964	962	962	961	961	91
15°	901	901	892	883	880	253
25°	781	776	764	737	716	359
35°	634	629	598	553	540	396
45°	486	476	435	399	383	375
55°	338	328	297	262	248	303
65°	201	189	171	175	145	198
75°	80	75	70	67	74	86
85°	11	12	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.6	980.6	980.6	980.6	980.6
2.5°	973.8	973.8	973.8	972.6	972.6
5°	963.6	962.4	962.4	961.3	961.3
7.5°	955.6	954.5	953.4	952.2	950.0
10°	944.3	944.3	943.2	937.5	936.4
12.5°	926.2	925.0	920.5	912.6	910.3
15°	901.2	901.2	892.1	883.1	879.7
17.5°	874.0	872.9	861.5	852.5	847.9
20°	844.5	842.3	830.9	816.2	808.3
22.5°	811.7	811.7	798.1	778.8	770.9
25°	781.1	776.5	764.1	736.8	716.4
27.5°	745.9	739.1	725.5	687.0	663.2
30°	707.4	704.0	684.7	634.8	616.7
32.5°	671.1	665.4	645.0	592.9	578.1
35°	633.7	629.2	598.5	553.2	539.6
37.5°	596.3	590.6	552.1	515.8	498.8
40°	558.9	552.1	510.1	477.2	459.1
42.5°	523.7	514.7	473.8	438.7	418.3
45°	486.3	476.1	435.3	399.0	383.2
47.5°	448.9	439.8	402.4	365.0	346.9
50°	409.2	401.3	367.3	329.9	310.6
52.5°	376.4	363.9	331.0	293.6	277.7
55°	337.8	327.6	297.0	261.9	248.3
57.5°	302.7	292.5	264.1	231.3	219.9
60°	269.8	255.1	231.3	202.9	193.8
62.5°	233.5	222.2	201.8	178.0	189.3
65°	200.6	189.3	171.2	174.6	145.1
67.5°	164.4	158.7	142.8	127.0	122.4
70°	133.8	127.0	121.3	104.3	99.8
72.5°	106.6	99.8	91.8	82.8	79.4
75°	80.5	74.8	70.3	66.9	73.7
77.5°	55.5	53.3	49.9	46.5	45.3
80°	36.3	35.1	34.0	32.9	31.7
82.5°	21.5	21.5	21.5	21.5	21.5
85°	11.3	12.5	13.6	14.7	15.9
87.5°	6.8	6.8	7.9	9.1	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)