

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: P559618

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-81-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559618
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-LD4-1HI-35-UNV-81-85-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1458.0 lumens
Efficiency: N/A
Efficacy: 67.5 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

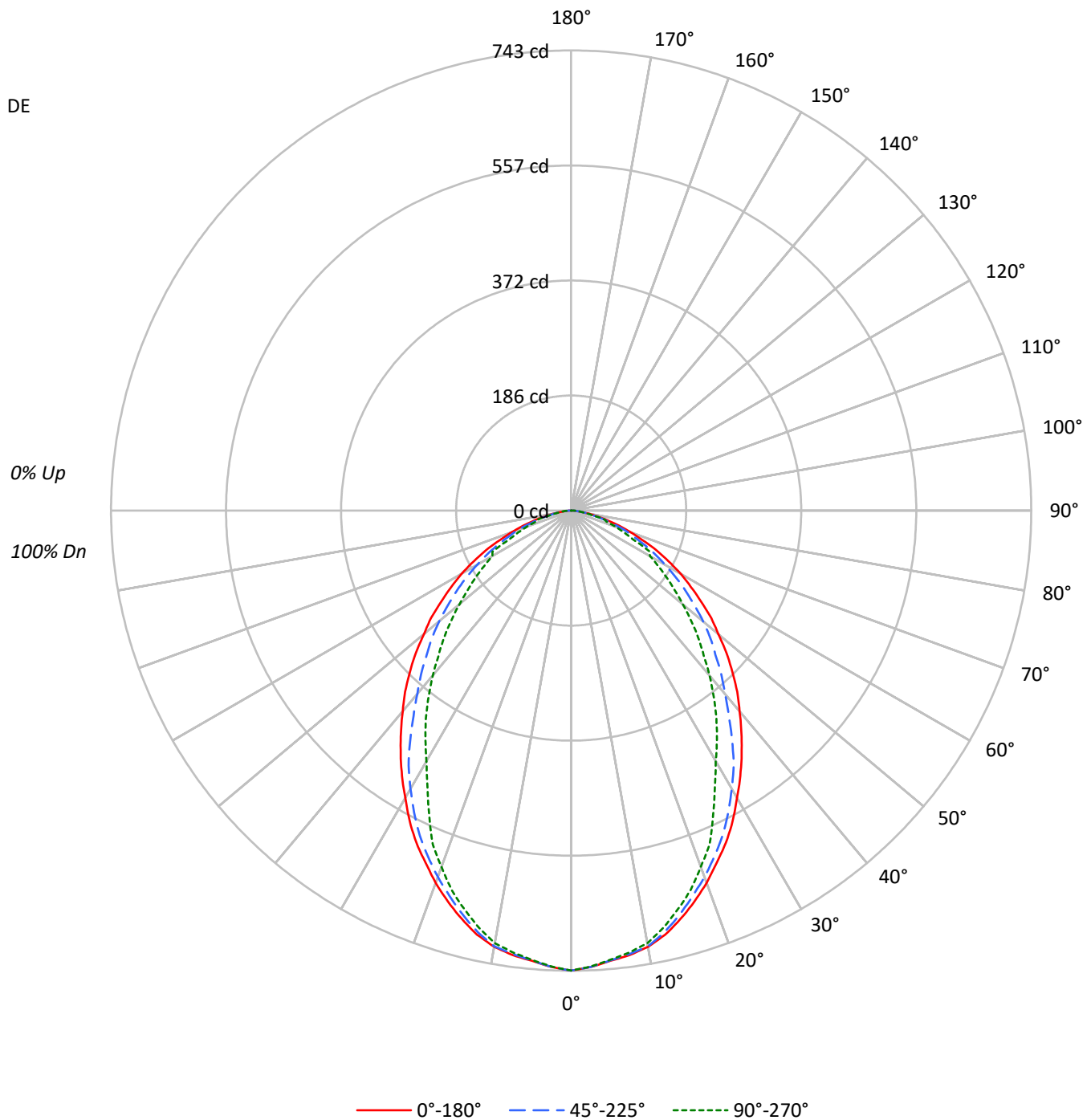
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3997	3997	3997
5°	3943	3938	3934
10°	3909	3904	3876
15°	3803	3765	3712
20°	3664	3605	3506
25°	3513	3437	3222
30°	3330	3223	2903
35°	3154	2978	2685
40°	2974	2715	2443
45°	2803	2509	2209
50°	2596	2329	1970
55°	2401	2111	1764
60°	2199	1886	1580
65°	1936	1650	1400
70°	1594	1446	1190
75°	1268	1106	1160
80°	852	800	744
85°	531	636	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2803 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	4.7
10°-20°	189.7	13.0
20°-30°	262.7	18.0
30°-40°	280.1	19.2
40°-50°	255.5	17.5
50°-60°	200.2	13.7
60°-70°	130.5	8.9
70°-80°	57.8	4.0
80°-90°	12.4	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°	521.5	35.8
0°-40°	801.6	55.0
0°-60°	1257.3	86.2
0°-90°	1458.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1458.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	743	743	743	743	743	
5°	730	729	729	728	728	69
15°	683	683	676	669	666	192
25°	592	588	579	558	543	272
35°	480	476	453	419	409	300
45°	368	361	330	302	290	284
55°	256	248	225	198	188	229
65°	152	143	130	132	110	150
75°	61	57	53	51	56	65
85°	9	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	742.7	742.7	742.7	742.7	742.7
2.5°	737.5	737.5	737.5	736.7	736.7
5°	729.8	728.9	728.9	728.1	728.1
7.5°	723.8	722.9	722.1	721.2	719.5
10°	715.2	715.2	714.4	710.1	709.2
12.5°	701.5	700.6	697.2	691.2	689.5
15°	682.6	682.6	675.7	668.8	666.3
17.5°	662.0	661.1	652.5	645.7	642.2
20°	639.7	637.9	629.4	618.2	612.2
22.5°	614.8	614.8	604.5	589.9	583.8
25°	591.6	588.1	578.7	558.1	542.6
27.5°	565.0	559.8	549.5	520.3	502.3
30°	535.8	533.2	518.6	480.8	467.1
32.5°	508.3	504.0	488.5	449.0	437.9
35°	480.0	476.5	453.3	419.0	408.7
37.5°	451.6	447.3	418.1	390.7	377.8
40°	423.3	418.1	386.4	361.5	347.7
42.5°	396.7	389.8	358.9	332.3	316.8
45°	368.3	360.6	329.7	302.2	290.2
47.5°	340.0	333.1	304.8	276.5	262.7
50°	310.0	303.9	278.2	249.9	235.3
52.5°	285.1	275.6	250.7	222.4	210.4
55°	255.9	248.1	225.0	198.3	188.0
57.5°	229.2	221.5	200.1	175.2	166.6
60°	204.3	193.2	175.2	153.7	146.8
62.5°	176.9	168.3	152.8	134.8	143.4
65°	152.0	143.4	129.6	132.2	109.9
67.5°	124.5	120.2	108.2	96.2	92.7
70°	101.3	96.2	91.9	79.0	75.6
72.5°	80.7	75.6	69.5	62.7	60.1
75°	61.0	56.7	53.2	50.7	55.8
77.5°	42.1	40.4	37.8	35.2	34.3
80°	27.5	26.6	25.8	24.9	24.0
82.5°	16.3	16.3	16.3	16.3	16.3
85°	8.6	9.4	10.3	11.2	12.0
87.5°	5.2	5.2	6.0	6.9	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)