

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: P559654

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-93-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559654
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-93-87-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1471.0 lumens
Efficiency: N/A
Efficacy: 68.1 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

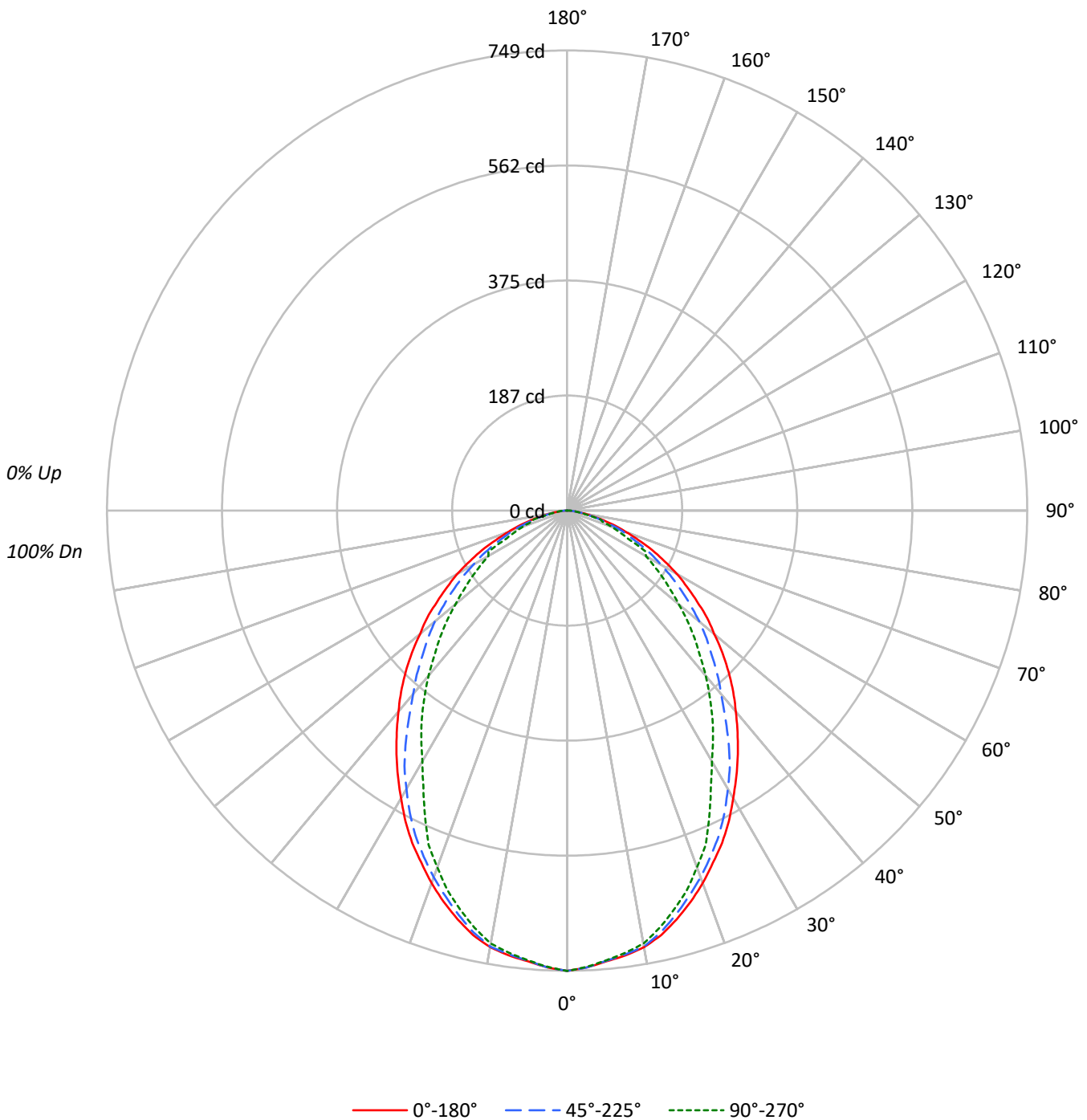
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4033	4033	4033
5°	3978	3973	3969
10°	3944	3939	3910
15°	3837	3798	3745
20°	3696	3637	3537
25°	3544	3467	3251
30°	3359	3251	2928
35°	3181	3005	2709
40°	3001	2739	2465
45°	2828	2531	2229
50°	2618	2350	1988
55°	2422	2130	1780
60°	2220	1902	1594
65°	1952	1666	1412
70°	1608	1459	1199
75°	1279	1117	1171
80°	859	806	753
85°	537	642	747

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2828 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.8	4.7
10°-20°	191.4	13.0
20°-30°	265.0	18.0
30°-40°	282.6	19.2
40°-50°	257.8	17.5
50°-60°	202.0	13.7
60°-70°	131.6	8.9
70°-80°	58.3	4.0
80°-90°	12.5	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°	526.2	35.8
0°-40°	808.8	55.0
0°-60°	1268.5	86.2
0°-90°	1471.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1471.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	736	735	735	735	735	70
15°	689	689	682	675	672	194
25°	597	593	584	563	548	274
35°	484	481	457	423	412	303
45°	372	364	333	305	293	286
55°	258	250	227	200	190	232
65°	153	145	131	133	111	151
75°	62	57	54	51	56	66
85°	9	10	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°	749.3	749.3	749.3	749.3	749.3
2.5°	744.1	744.1	744.1	743.2	743.2
5°	736.3	735.4	735.4	734.6	734.6
7.5°	730.3	729.4	728.5	727.7	725.9
10°	721.6	721.6	720.7	716.4	715.5
12.5°	707.7	706.9	703.4	697.3	695.6
15°	688.7	688.7	681.7	674.8	672.2
17.5°	667.9	667.0	658.4	651.4	648.0
20°	645.4	643.6	635.0	623.7	617.6
22.5°	620.2	620.2	609.8	595.1	589.1
25°	596.8	593.4	583.9	563.1	547.5
27.5°	570.0	564.8	554.4	524.9	506.8
30°	540.5	537.9	523.2	485.1	471.2
32.5°	512.8	508.5	492.9	453.0	441.8
35°	484.2	480.8	457.4	422.7	412.3
37.5°	455.6	451.3	421.9	394.1	381.2
40°	427.1	421.9	389.8	364.7	350.8
42.5°	400.2	393.3	362.1	335.2	319.6
45°	371.6	363.8	332.6	304.9	292.8
47.5°	343.0	336.1	307.5	278.9	265.1
50°	312.7	306.7	280.7	252.1	237.4
52.5°	287.6	278.1	252.9	224.4	212.2
55°	258.1	250.3	227.0	200.1	189.7
57.5°	231.3	223.5	201.8	176.7	168.1
60°	206.2	194.9	176.7	155.1	148.1
62.5°	178.4	169.8	154.2	136.0	144.7
65°	153.3	144.7	130.8	133.4	110.9
67.5°	125.6	121.3	109.1	97.0	93.6
70°	102.2	97.0	92.7	79.7	76.2
72.5°	81.4	76.2	70.2	63.2	60.6
75°	61.5	57.2	53.7	51.1	56.3
77.5°	42.4	40.7	38.1	35.5	34.7
80°	27.7	26.9	26.0	25.1	24.3
82.5°	16.5	16.5	16.5	16.5	16.5
85°	8.7	9.5	10.4	11.3	12.1
87.5°	5.2	5.2	6.1	6.9	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)