

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: P559074

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559074
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-35-UNV-93-85-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1586.0 lumens
Efficiency: N/A
Efficacy: 73.4 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

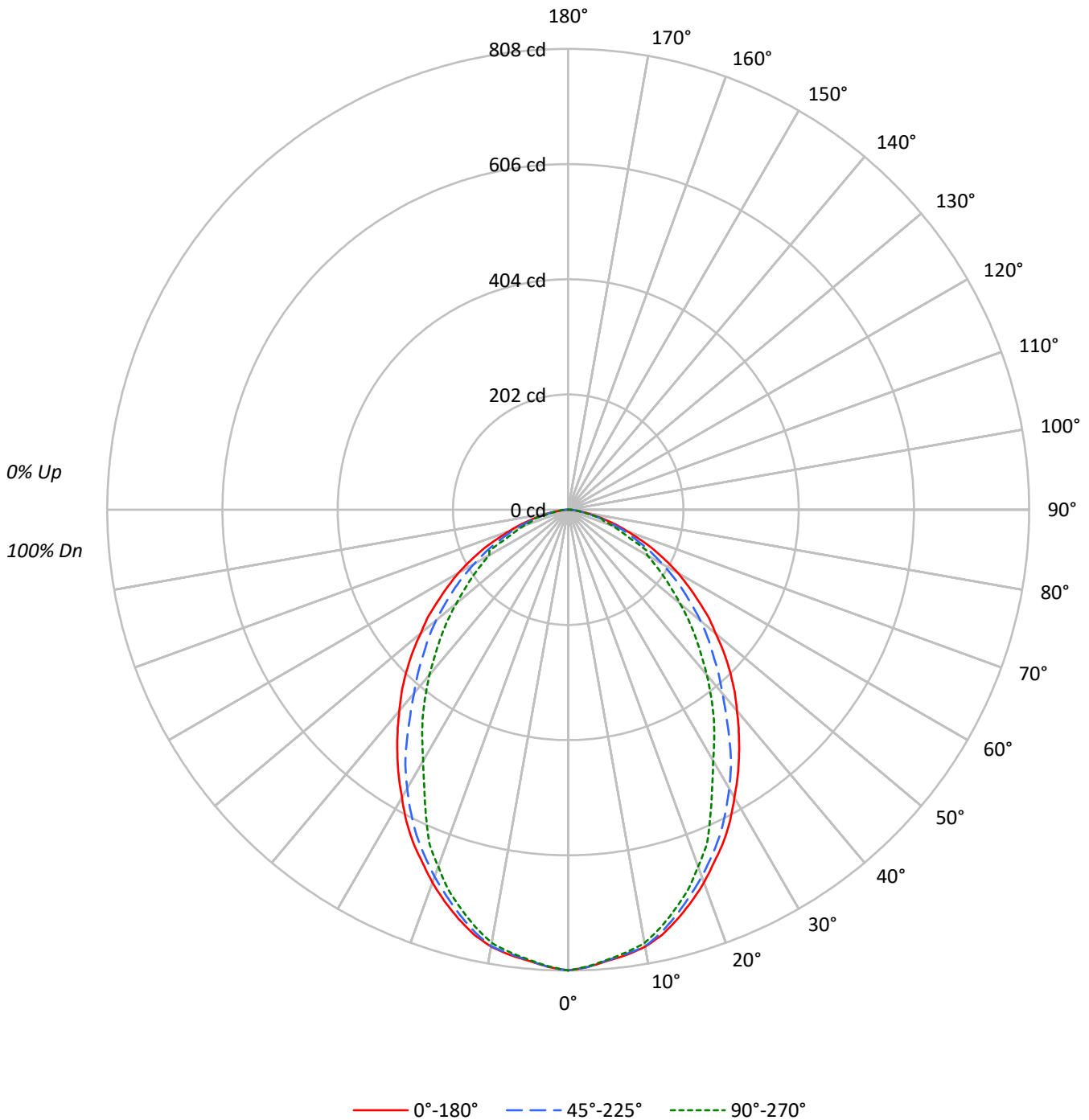
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8696	8696	8696
5°	8578	8567	8558
10°	8504	8494	8432
15°	8274	8191	8077
20°	7970	7842	7628
25°	7643	7476	7011
30°	7244	7011	6315
35°	6861	6479	5842
40°	6469	5906	5316
45°	6100	5459	4806
50°	5647	5067	4285
55°	5223	4592	3838
60°	4786	4101	3438
65°	4210	3591	3044
70°	3468	3144	2587
75°	2757	2408	2524
80°	1853	1736	1624
85°	1149	1383	1618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6100 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	4.7
10°-20°	206.4	13.0
20°-30°	285.7	18.0
30°-40°	304.7	19.2
40°-50°	278.0	17.5
50°-60°	217.7	13.7
60°-70°	141.9	8.9
70°-80°	62.9	4.0
80°-90°	13.5	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°	567.3	35.8
0°-40°	872.0	55.0
0°-60°	1367.7	86.2
0°-90°	1586.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1586.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	794	793	793	792	792	75
15°	742	742	735	728	725	209
25°	644	640	630	607	590	295
35°	522	518	493	456	445	326
45°	401	392	359	329	316	309
55°	278	270	245	216	204	250
65°	165	156	141	144	120	163
75°	66	62	58	55	61	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	807.9	807.9	807.9	807.9	807.9
2.5°	802.3	802.3	802.3	801.3	801.3
5°	793.9	792.9	792.9	792.0	792.0
7.5°	787.3	786.4	785.5	784.5	782.7
10°	778.0	778.0	777.1	772.4	771.5
12.5°	763.1	762.1	758.4	751.8	750.0
15°	742.5	742.5	735.0	727.6	724.8
17.5°	720.1	719.2	709.8	702.3	698.6
20°	695.8	693.9	684.6	672.5	665.9
22.5°	668.7	668.7	657.5	641.6	635.1
25°	643.5	639.8	629.5	607.1	590.3
27.5°	614.6	609.0	597.7	566.0	546.4
30°	582.8	580.0	564.1	523.0	508.1
32.5°	552.9	548.2	531.4	488.5	476.3
35°	522.1	518.4	493.1	455.8	444.6
37.5°	491.3	486.6	454.8	425.0	410.9
40°	460.4	454.8	420.3	393.2	378.3
42.5°	431.5	424.0	390.4	361.4	344.6
45°	400.7	392.3	358.6	328.8	315.7
47.5°	369.9	362.4	331.6	300.7	285.8
50°	337.2	330.6	302.6	271.8	255.9
52.5°	310.1	299.8	272.7	241.9	228.8
55°	278.3	269.9	244.7	215.7	204.5
57.5°	249.4	241.0	217.6	190.5	181.2
60°	222.3	210.1	190.5	167.2	159.7
62.5°	192.4	183.1	166.2	146.6	156.0
65°	165.3	156.0	141.0	143.8	119.5
67.5°	135.4	130.8	117.7	104.6	100.9
70°	110.2	104.6	99.9	85.9	82.2
72.5°	87.8	82.2	75.7	68.2	65.4
75°	66.3	61.6	57.9	55.1	60.7
77.5°	45.8	43.9	41.1	38.3	37.4
80°	29.9	29.0	28.0	27.1	26.2
82.5°	17.7	17.7	17.7	17.7	17.7
85°	9.3	10.3	11.2	12.1	13.1
87.5°	5.6	5.6	6.5	7.5	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)