

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: P559206

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-93-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559206
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-93-87-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1621.0 lumens
Efficiency: N/A
Efficacy: 75.0 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

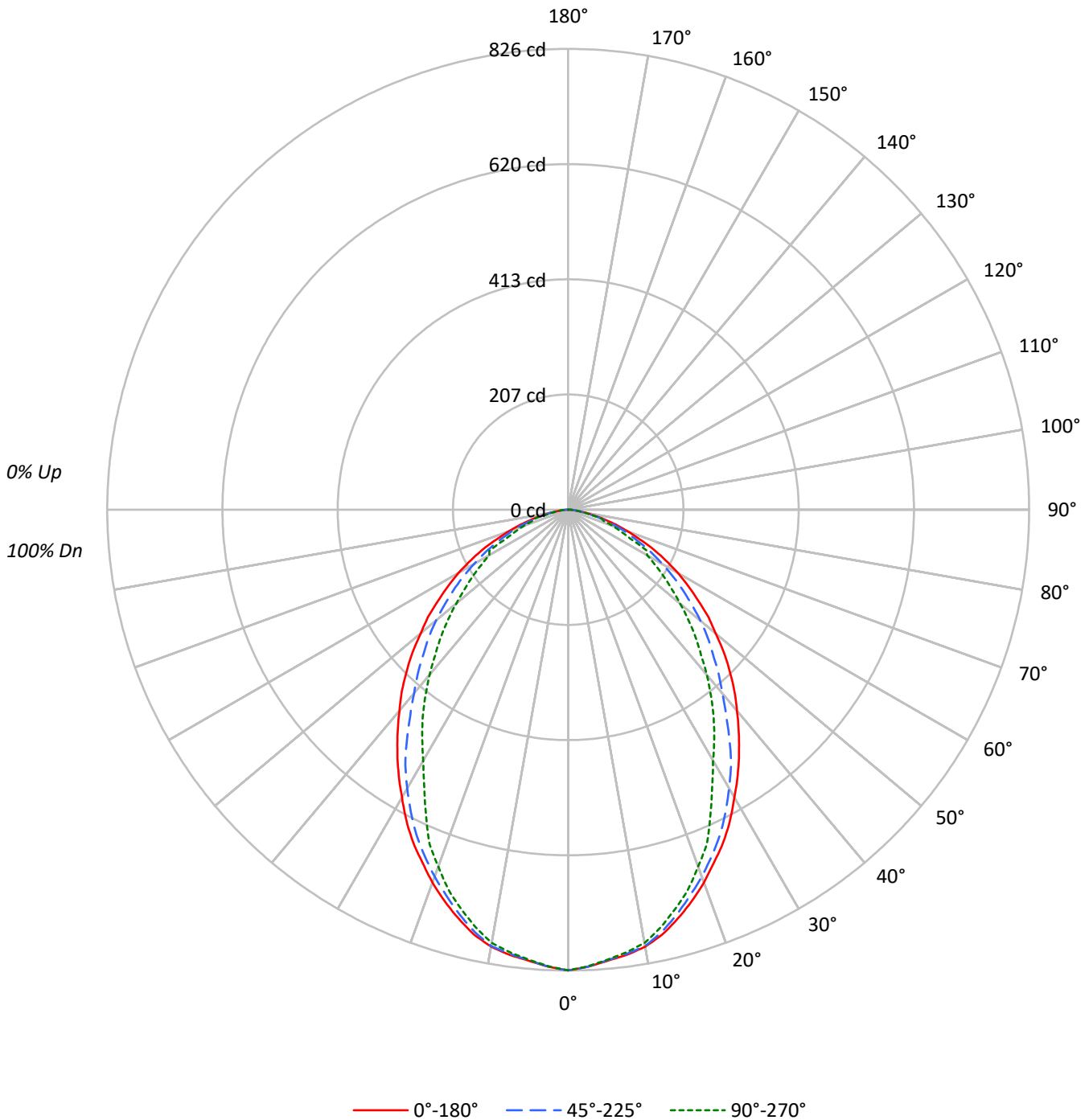
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8888	8888	8888
5°	8767	8756	8747
10°	8692	8681	8618
15°	8457	8372	8255
20°	8147	8015	7796
25°	7811	7641	7165
30°	7404	7167	6454
35°	7012	6623	5971
40°	6613	6036	5432
45°	6234	5581	4911
50°	5771	5179	4381
55°	5339	4693	3924
60°	4891	4191	3513
65°	4304	3670	3112
70°	3544	3213	2644
75°	2820	2462	2578
80°	1891	1773	1655
85°	1173	1420	1655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6234 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	4.7
10°-20°	210.9	13.0
20°-30°	292.0	18.0
30°-40°	311.4	19.2
40°-50°	284.1	17.5
50°-60°	222.6	13.7
60°-70°	145.0	8.9
70°-80°	64.3	4.0
80°-90°	13.8	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°	579.8	35.8
0°-40°	891.2	55.0
0°-60°	1397.9	86.2
0°-90°	1621.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1621.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	826	826	826	826	826	
5°	811	810	810	810	810	77
15°	759	759	751	744	741	213
25°	658	654	643	620	603	302
35°	534	530	504	466	454	334
45°	410	401	367	336	323	315
55°	284	276	250	220	209	255
65°	169	159	144	147	122	167
75°	68	63	59	56	62	73
85°	10	10	12	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	825.7	825.7	825.7	825.7	825.7
2.5°	820.0	820.0	820.0	819.0	819.0
5°	811.4	810.4	810.4	809.5	809.5
7.5°	804.7	803.8	802.8	801.9	799.9
10°	795.2	795.2	794.2	789.4	788.5
12.5°	779.9	778.9	775.1	768.4	766.5
15°	758.9	758.9	751.3	743.6	740.8
17.5°	736.0	735.0	725.5	717.8	714.0
20°	711.2	709.3	699.7	687.3	680.6
22.5°	683.5	683.5	672.0	655.8	649.1
25°	657.7	653.9	643.4	620.5	603.3
27.5°	628.1	622.4	610.9	578.5	558.4
30°	595.7	592.8	576.6	534.6	519.3
32.5°	565.1	560.3	543.2	499.2	486.8
35°	533.6	529.8	504.0	465.8	454.4
37.5°	502.1	497.3	464.9	434.3	420.0
40°	470.6	464.9	429.6	401.9	386.6
42.5°	441.0	433.4	399.0	369.4	352.2
45°	409.5	400.9	366.6	336.0	322.6
47.5°	378.0	370.4	338.9	307.4	292.1
50°	344.6	337.9	309.3	277.8	261.6
52.5°	316.9	306.4	278.7	247.2	233.9
55°	284.5	275.9	250.1	220.5	209.1
57.5°	254.9	246.3	222.4	194.7	185.2
60°	227.2	214.8	194.7	170.9	163.2
62.5°	196.6	187.1	169.9	149.9	159.4
65°	169.0	159.4	144.1	147.0	122.2
67.5°	138.4	133.6	120.3	106.9	103.1
70°	112.6	106.9	102.1	87.8	84.0
72.5°	89.7	84.0	77.3	69.7	66.8
75°	67.8	63.0	59.2	56.3	62.0
77.5°	46.8	44.9	42.0	39.1	38.2
80°	30.5	29.6	28.6	27.7	26.7
82.5°	18.1	18.1	18.1	18.1	18.1
85°	9.5	10.5	11.5	12.4	13.4
87.5°	5.7	5.7	6.7	7.6	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)