

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: P559182

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-81-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559182
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-81-97-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1566.0 lumens
Efficiency: N/A
Efficacy: 72.5 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

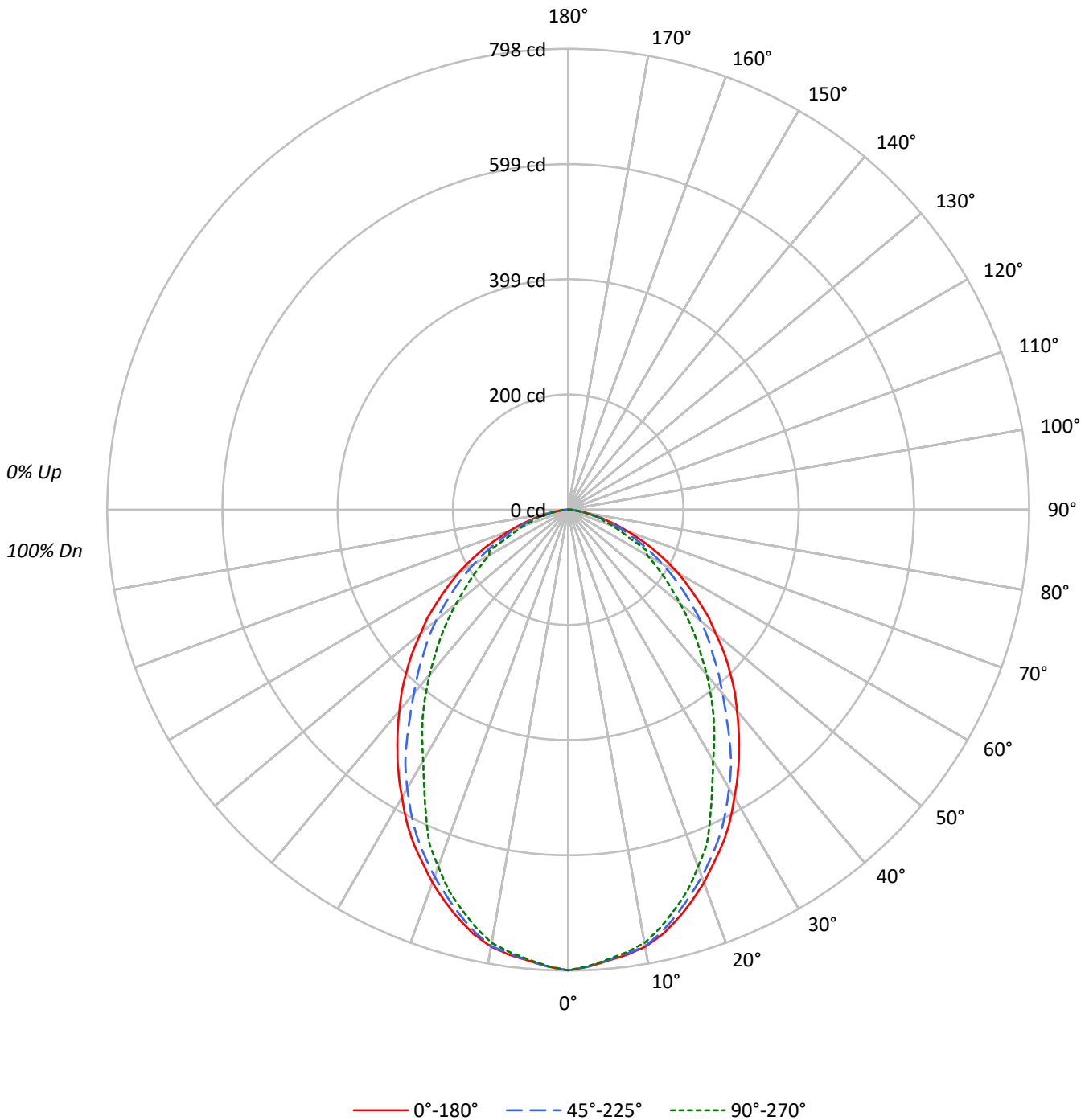
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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°	8586	8586	8586
5°	8470	8459	8450
10°	8396	8387	8325
15°	8169	8088	7974
20°	7869	7743	7531
25°	7546	7383	6922
30°	7153	6923	6236
35°	6774	6398	5769
40°	6388	5831	5248
45°	6022	5390	4745
50°	5575	5004	4232
55°	5157	4534	3791
60°	4725	4049	3395
65°	4157	3548	3005
70°	3424	3106	2555
75°	2724	2379	2491
80°	1829	1717	1599
85°	1136	1371	1593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6022 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	4.7
10°-20°	203.8	13.0
20°-30°	282.1	18.0
30°-40°	300.8	19.2
40°-50°	274.4	17.5
50°-60°	215.0	13.7
60°-70°	140.1	8.9
70°-80°	62.1	4.0
80°-90°	13.3	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°	560.2	35.8
0°-40°	861.0	55.0
0°-60°	1350.4	86.2
0°-90°	1566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	784	783	783	782	782	74
15°	733	733	726	718	716	206
25°	635	632	622	599	583	292
35°	516	512	487	450	439	322
45°	396	387	354	325	312	305
55°	275	266	242	213	202	246
65°	163	154	139	142	118	161
75°	66	61	57	54	60	70
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°	797.7	797.7	797.7	797.7	797.7
2.5°	792.2	792.2	792.2	791.2	791.2
5°	783.9	782.9	782.9	782.0	782.0
7.5°	777.4	776.5	775.6	774.6	772.8
10°	768.2	768.2	767.3	762.7	761.7
12.5°	753.4	752.5	748.8	742.4	740.5
15°	733.1	733.1	725.8	718.4	715.6
17.5°	711.0	710.1	700.9	693.5	689.8
20°	687.0	685.2	676.0	664.0	657.5
22.5°	660.3	660.3	649.2	633.5	627.1
25°	635.4	631.7	621.6	599.4	582.8
27.5°	606.8	601.3	590.2	558.9	539.5
30°	575.5	572.7	557.0	516.4	501.7
32.5°	545.9	541.3	524.7	482.3	470.3
35°	515.5	511.8	486.9	450.0	439.0
37.5°	485.1	480.5	449.1	419.6	405.8
40°	454.6	449.1	415.0	388.2	373.5
42.5°	426.1	418.7	385.5	356.9	340.3
45°	395.6	387.3	354.1	324.6	311.7
47.5°	365.2	357.8	327.4	296.9	282.2
50°	332.9	326.5	298.8	268.4	252.7
52.5°	306.2	296.0	269.3	238.8	225.9
55°	274.8	266.5	241.6	213.0	202.0
57.5°	246.2	237.9	214.9	188.1	178.9
60°	219.5	207.5	188.1	165.1	157.7
62.5°	190.0	180.8	164.2	144.8	154.0
65°	163.2	154.0	139.3	142.0	118.0
67.5°	133.7	129.1	116.2	103.3	99.6
70°	108.8	103.3	98.7	84.8	81.2
72.5°	86.7	81.2	74.7	67.3	64.6
75°	65.5	60.9	57.2	54.4	59.9
77.5°	45.2	43.3	40.6	37.8	36.9
80°	29.5	28.6	27.7	26.7	25.8
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.1	11.1	12.0	12.9
87.5°	5.5	5.5	6.5	7.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)