

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: P559783

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559783
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-50-UNV-93-87-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1806.0 lumens
Efficiency: N/A
Efficacy: 83.6 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

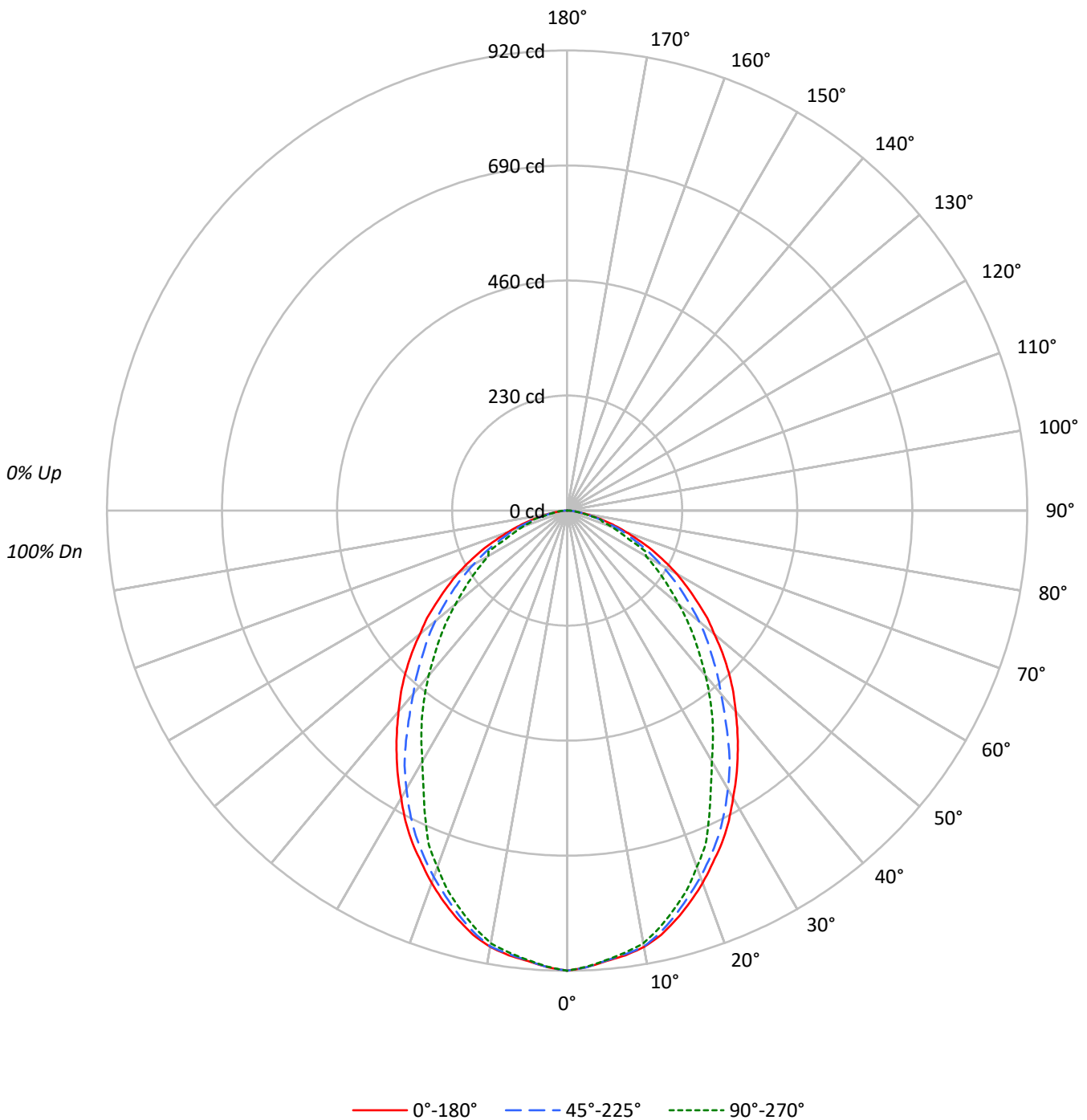
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4951	4951	4951
5°	4884	4878	4873
10°	4841	4836	4801
15°	4711	4664	4598
20°	4538	4465	4343
25°	4352	4257	3992
30°	4124	3992	3596
35°	3906	3689	3326
40°	3684	3362	3026
45°	3473	3108	2736
50°	3214	2885	2440
55°	2974	2614	2185
60°	2724	2336	1958
65°	2397	2045	1733
70°	1975	1791	1473
75°	1570	1370	1437
80°	1054	989	924
85°	655	790	920

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3473 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	4.7
10°-20°	235.0	13.0
20°-30°	325.4	18.0
30°-40°	346.9	19.2
40°-50°	316.5	17.5
50°-60°	248.0	13.7
60°-70°	161.6	8.9
70°-80°	71.6	4.0
80°-90°	15.4	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°	646.0	35.8
0°-40°	993.0	55.0
0°-60°	1557.4	86.2
0°-90°	1806.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1806.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	904	903	903	902	902	86
15°	846	846	837	828	825	238
25°	733	728	717	691	672	336
35°	594	590	562	519	506	372
45°	456	447	408	374	360	351
55°	317	307	279	246	233	284
65°	188	178	161	164	136	186
75°	76	70	66	63	69	81
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	920.0	920.0	920.0	920.0	920.0
2.5°	913.6	913.6	913.6	912.5	912.5
5°	904.0	902.9	902.9	901.9	901.9
7.5°	896.6	895.5	894.4	893.4	891.2
10°	885.9	885.9	884.9	879.5	878.5
12.5°	868.9	867.8	863.6	856.1	854.0
15°	845.5	845.5	837.0	828.5	825.3
17.5°	820.0	818.9	808.3	799.8	795.5
20°	792.3	790.2	779.6	765.7	758.3
22.5°	761.5	761.5	748.7	730.6	723.2
25°	732.8	728.5	716.8	691.3	672.2
27.5°	699.8	693.4	680.7	644.5	622.2
30°	663.6	660.5	642.4	595.6	578.6
32.5°	629.6	624.3	605.1	556.2	542.4
35°	594.5	590.3	561.5	519.0	506.2
37.5°	559.4	554.1	517.9	483.9	468.0
40°	524.3	517.9	478.6	447.7	430.7
42.5°	491.4	482.8	444.6	411.6	392.4
45°	456.3	446.7	408.4	374.4	359.5
47.5°	421.2	412.6	377.6	342.5	325.4
50°	383.9	376.5	344.6	309.5	291.4
52.5°	353.1	341.4	310.6	275.5	260.6
55°	316.9	307.4	278.6	245.7	232.9
57.5°	284.0	274.4	247.8	217.0	206.3
60°	253.1	239.3	217.0	190.4	181.9
62.5°	219.1	208.5	189.3	167.0	177.6
65°	188.2	177.6	160.6	163.8	136.1
67.5°	154.2	148.9	134.0	119.1	114.9
70°	125.5	119.1	113.8	97.8	93.6
72.5°	100.0	93.6	86.1	77.6	74.4
75°	75.5	70.2	65.9	62.7	69.1
77.5°	52.1	50.0	46.8	43.6	42.5
80°	34.0	33.0	31.9	30.8	29.8
82.5°	20.2	20.2	20.2	20.2	20.2
85°	10.6	11.7	12.8	13.8	14.9
87.5°	6.4	6.4	7.4	8.5	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)