

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: P559779

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-93-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559779
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-93-85-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1887.0 lumens
Efficiency: N/A
Efficacy: 87.4 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

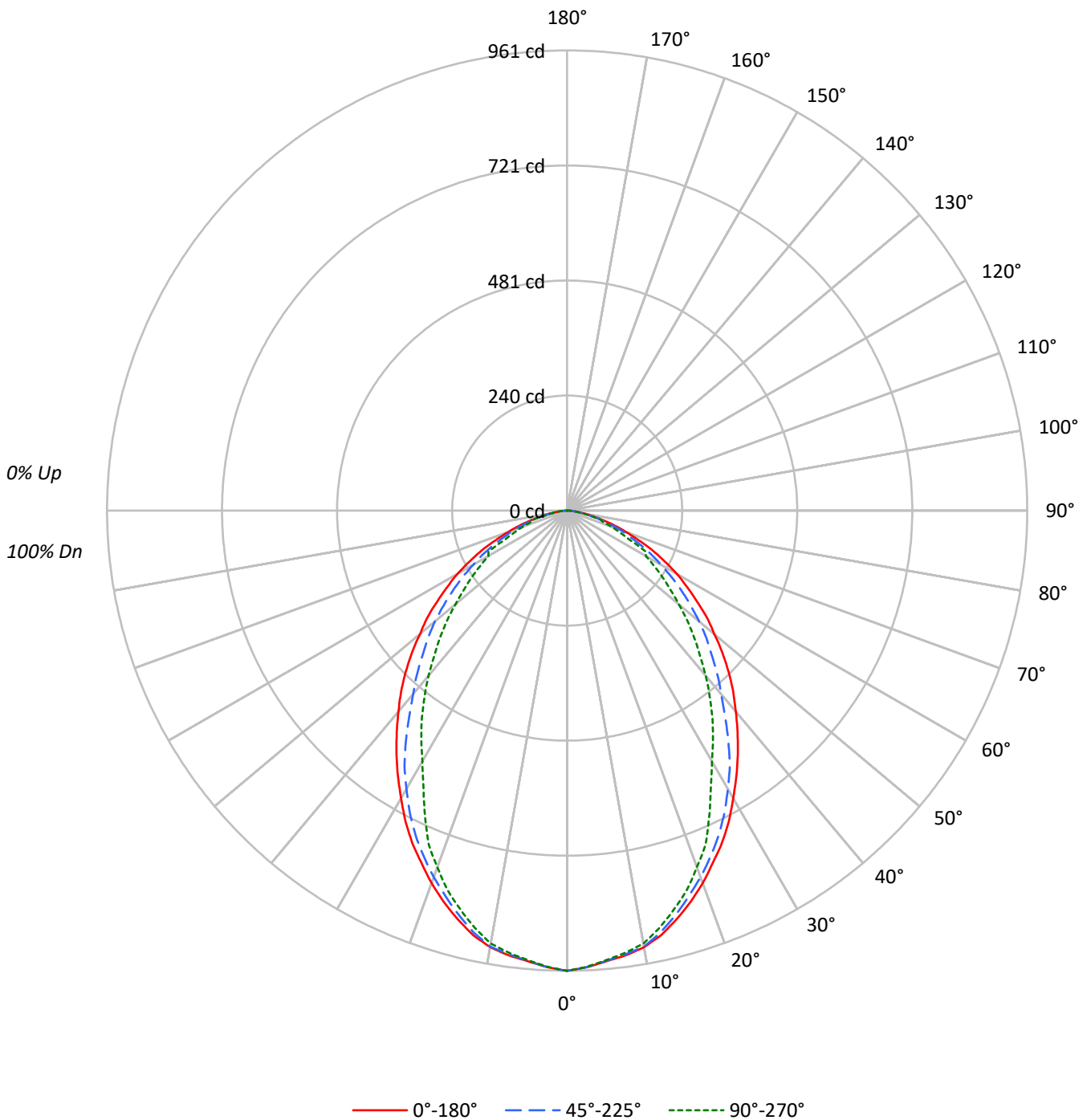
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5173	5173	5173
5°	5103	5097	5091
10°	5059	5052	5016
15°	4922	4873	4805
20°	4742	4665	4538
25°	4546	4448	4170
30°	4309	4171	3757
35°	4081	3855	3475
40°	3849	3514	3162
45°	3628	3248	2859
50°	3359	3014	2550
55°	3107	2731	2284
60°	2847	2440	2045
65°	2505	2137	1811
70°	2063	1871	1539
75°	1641	1433	1501
80°	1103	1032	964
85°	685	821	963

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3628 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	4.7
10°-20°	245.6	13.0
20°-30°	340.0	18.0
30°-40°	362.5	19.2
40°-50°	330.7	17.5
50°-60°	259.1	13.7
60°-70°	168.9	8.9
70°-80°	74.8	4.0
80°-90°	16.1	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
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0°-30°	675.0	35.8
0°-40°	1037.5	55.0
0°-60°	1627.3	86.2
0°-90°	1887.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1887.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	944	943	943	942	942	90
15°	883	883	874	866	862	248
25°	766	761	749	722	702	351
35°	621	617	587	542	529	388
45°	477	467	427	391	376	367
55°	331	321	291	257	243	297
65°	197	186	168	171	142	194
75°	79	73	69	66	72	85
85°	11	12	13	14	16	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	961.2	961.2	961.2	961.2	961.2
2.5°	954.5	954.5	954.5	953.4	953.4
5°	944.5	943.4	943.4	942.3	942.3
7.5°	936.8	935.7	934.5	933.4	931.2
10°	925.7	925.7	924.5	919.0	917.9
12.5°	907.9	906.8	902.3	894.5	892.3
15°	883.4	883.4	874.5	865.6	862.3
17.5°	856.8	855.6	844.5	835.6	831.2
20°	827.9	825.6	814.5	800.1	792.3
22.5°	795.6	795.6	782.3	763.4	755.6
25°	765.6	761.2	749.0	722.3	702.3
27.5°	731.2	724.5	711.2	673.4	650.1
30°	693.4	690.1	671.2	622.3	604.5
32.5°	657.8	652.3	632.3	581.2	566.7
35°	621.2	616.7	586.7	542.3	528.9
37.5°	584.5	579.0	541.2	505.6	488.9
40°	547.8	541.2	500.1	467.8	450.0
42.5°	513.4	504.5	464.5	430.0	410.0
45°	476.7	466.7	426.7	391.2	375.6
47.5°	440.0	431.2	394.5	357.8	340.0
50°	401.2	393.4	360.0	323.4	304.5
52.5°	368.9	356.7	324.5	287.8	272.3
55°	331.1	321.1	291.1	256.7	243.4
57.5°	296.7	286.7	258.9	226.7	215.6
60°	264.5	250.0	226.7	198.9	190.0
62.5°	228.9	217.8	197.8	174.5	185.6
65°	196.7	185.6	167.8	171.1	142.2
67.5°	161.1	155.6	140.0	124.5	120.0
70°	131.1	124.5	118.9	102.2	97.8
72.5°	104.5	97.8	90.0	81.1	77.8
75°	78.9	73.3	68.9	65.6	72.2
77.5°	54.5	52.2	48.9	45.6	44.4
80°	35.6	34.4	33.3	32.2	31.1
82.5°	21.1	21.1	21.1	21.1	21.1
85°	11.1	12.2	13.3	14.4	15.6
87.5°	6.7	6.7	7.8	8.9	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)