

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: P559751

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559751
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-81-87-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1712.0 lumens
Efficiency: N/A
Efficacy: 79.3 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

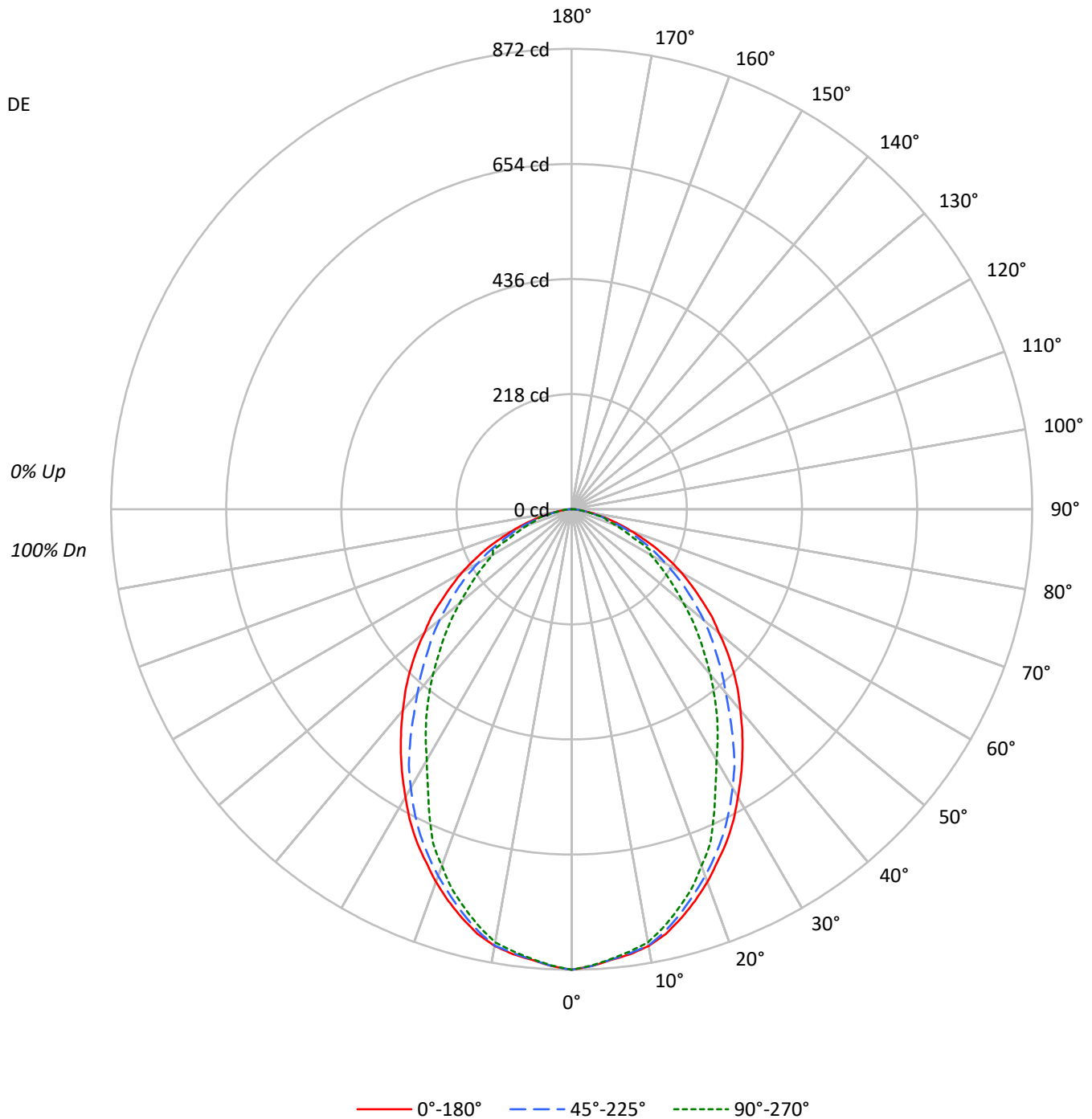
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	4694	4694	4694
5°	4629	4624	4619
10°	4589	4584	4551
15°	4466	4421	4359
20°	4302	4233	4117
25°	4125	4035	3784
30°	3910	3784	3408
35°	3703	3497	3153
40°	3492	3188	2869
45°	3292	2946	2594
50°	3048	2735	2313
55°	2819	2478	2072
60°	2582	2214	1856
65°	2272	1938	1643
70°	1873	1698	1396
75°	1489	1300	1362
80°	1001	936	874
85°	624	747	871

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3292 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.2	4.7
10°-20°	222.8	13.0
20°-30°	308.4	18.0
30°-40°	328.9	19.2
40°-50°	300.0	17.5
50°-60°	235.1	13.7
60°-70°	153.2	8.9
70°-80°	67.9	4.0
80°-90°	14.6	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°	612.4	35.8
0°-40°	941.3	55.0
0°-60°	1476.4	86.2
0°-90°	1712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	857	856	856	855	855	81
15°	802	802	793	785	782	225
25°	695	691	680	655	637	319
35°	564	560	532	492	480	352
45°	432	423	387	355	341	333
55°	300	291	264	233	221	269
65°	178	168	152	155	129	176
75°	72	66	62	60	66	77
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	872.1	872.1	872.1	872.1	872.1
2.5°	866.0	866.0	866.0	865.0	865.0
5°	856.9	855.9	855.9	854.9	854.9
7.5°	849.9	848.9	847.9	846.9	844.8
10°	839.8	839.8	838.8	833.8	832.8
12.5°	823.7	822.7	818.6	811.6	809.6
15°	801.5	801.5	793.4	785.4	782.3
17.5°	777.3	776.3	766.2	758.1	754.1
20°	751.1	749.1	739.0	725.9	718.8
22.5°	721.9	721.9	709.8	692.6	685.6
25°	694.6	690.6	679.5	655.3	637.2
27.5°	663.4	657.3	645.2	611.0	589.8
30°	629.1	626.1	608.9	564.6	548.4
32.5°	596.8	591.8	573.7	527.3	514.2
35°	563.6	559.5	532.3	492.0	479.9
37.5°	530.3	525.3	491.0	458.7	443.6
40°	497.0	491.0	453.7	424.4	408.3
42.5°	465.8	457.7	421.4	390.2	372.0
45°	432.5	423.4	387.1	354.9	340.8
47.5°	399.2	391.2	357.9	324.6	308.5
50°	364.0	356.9	326.6	293.4	276.2
52.5°	334.7	323.6	294.4	261.1	247.0
55°	300.4	291.4	264.1	232.9	220.8
57.5°	269.2	260.1	234.9	205.7	195.6
60°	239.9	226.8	205.7	180.5	172.4
62.5°	207.7	197.6	179.5	158.3	168.4
65°	178.4	168.4	152.2	155.3	129.0
67.5°	146.2	141.1	127.0	112.9	108.9
70°	119.0	112.9	107.9	92.8	88.7
72.5°	94.8	88.7	81.7	73.6	70.6
75°	71.6	66.5	62.5	59.5	65.5
77.5°	49.4	47.4	44.4	41.3	40.3
80°	32.3	31.3	30.2	29.2	28.2
82.5°	19.2	19.2	19.2	19.2	19.2
85°	10.1	11.1	12.1	13.1	14.1
87.5°	6.0	6.0	7.1	8.1	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)