

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: P559555

Luminaire Tested: FSR-12-1-LD4-2STD-50-UNV-81-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559555
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-LD4-2STD-50-UNV-81-85-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1505.0 lumens
Efficiency: N/A
Efficacy: 90.7 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

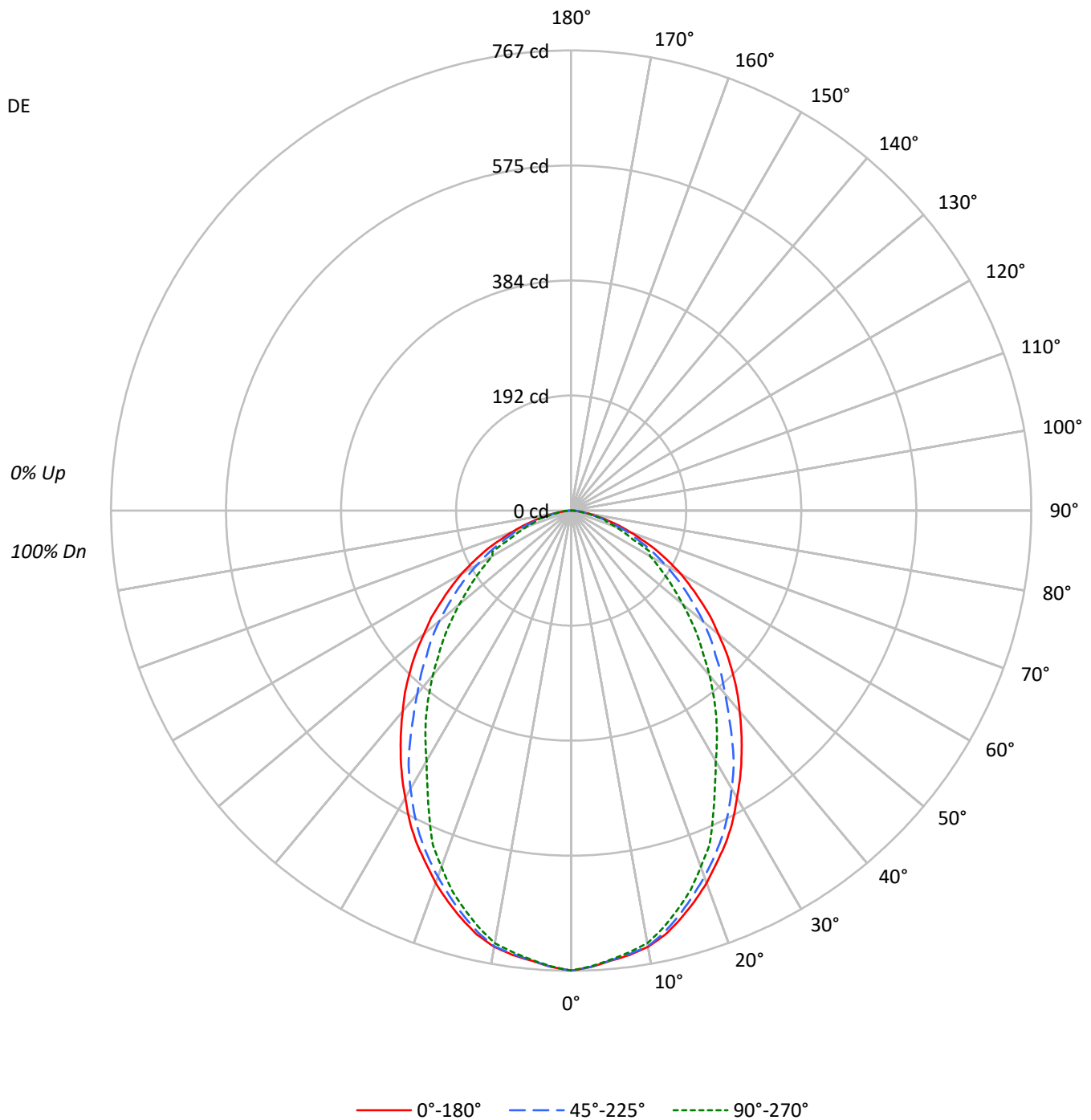
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8252	8252	8252
5°	8139	8130	8121
10°	8070	8060	8002
15°	7852	7773	7663
20°	7564	7441	7238
25°	7252	7094	6652
30°	6873	6653	5992
35°	6510	6150	5544
40°	6139	5604	5043
45°	5788	5180	4561
50°	5357	4809	4066
55°	4956	4358	3643
60°	4540	3892	3264
65°	3996	3408	2888
70°	3292	2984	2455
75°	2616	2283	2396
80°	1760	1649	1537
85°	1099	1309	1531

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5788 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	4.7
10°-20°	195.8	13.0
20°-30°	271.1	18.0
30°-40°	289.1	19.2
40°-50°	263.8	17.5
50°-60°	206.6	13.7
60°-70°	134.7	8.9
70°-80°	59.7	4.0
80°-90°	12.8	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°	538.4	35.8
0°-40°	827.5	55.0
0°-60°	1297.8	86.2
0°-90°	1505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	767	767	767	767	767	
5°	753	752	752	752	752	72
15°	705	705	698	690	688	198
25°	611	607	597	576	560	280
35°	495	492	468	432	422	310
45°	380	372	340	312	300	293
55°	264	256	232	205	194	237
65°	157	148	134	136	113	155
75°	63	58	55	52	58	67
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	766.6	766.6	766.6	766.6	766.6
2.5°	761.3	761.3	761.3	760.4	760.4
5°	753.3	752.4	752.4	751.6	751.6
7.5°	747.1	746.2	745.4	744.5	742.7
10°	738.3	738.3	737.4	732.9	732.1
12.5°	724.1	723.2	719.7	713.5	711.7
15°	704.6	704.6	697.5	690.4	687.7
17.5°	683.3	682.4	673.6	666.5	662.9
20°	660.3	658.5	649.6	638.1	631.9
22.5°	634.6	634.6	623.9	608.9	602.7
25°	610.6	607.1	597.3	576.1	560.1
27.5°	583.2	577.9	567.2	537.1	518.5
30°	553.0	550.4	535.3	496.3	482.1
32.5°	524.7	520.2	504.3	463.5	452.0
35°	495.4	491.9	468.0	432.5	421.9
37.5°	466.2	461.7	431.6	403.3	390.0
40°	436.9	431.6	398.8	373.1	358.9
42.5°	409.5	402.4	370.5	343.0	327.0
45°	380.2	372.2	340.3	312.0	299.6
47.5°	351.0	343.9	314.6	285.4	271.2
50°	319.9	313.7	287.2	257.9	242.8
52.5°	294.2	284.5	258.8	229.5	217.1
55°	264.1	256.1	232.2	204.7	194.1
57.5°	236.6	228.7	206.5	180.8	171.9
60°	210.9	199.4	180.8	158.6	151.6
62.5°	182.6	173.7	157.8	139.1	148.0
65°	156.9	148.0	133.8	136.5	113.4
67.5°	128.5	124.1	111.7	99.3	95.7
70°	104.6	99.3	94.8	81.5	78.0
72.5°	83.3	78.0	71.8	64.7	62.0
75°	62.9	58.5	54.9	52.3	57.6
77.5°	43.4	41.7	39.0	36.3	35.5
80°	28.4	27.5	26.6	25.7	24.8
82.5°	16.8	16.8	16.8	16.8	16.8
85°	8.9	9.7	10.6	11.5	12.4
87.5°	5.3	5.3	6.2	7.1	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)