

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: P559529

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559529
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-40-UNV-93-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1345.0 lumens
Efficiency: N/A
Efficacy: 81.0 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

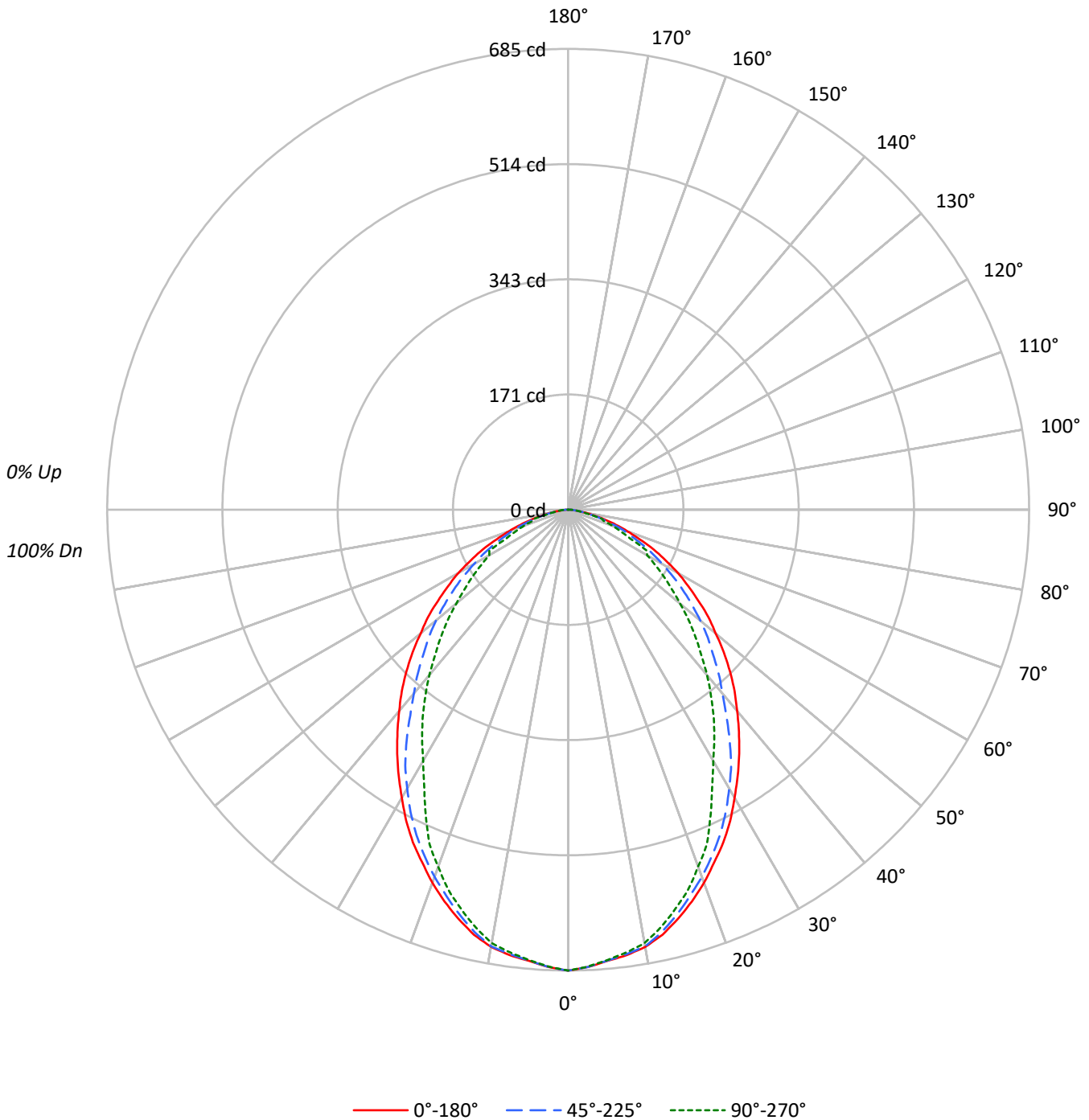
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	7374	7374	7374
5°	7274	7266	7258
10°	7212	7203	7150
15°	7017	6946	6849
20°	6759	6651	6468
25°	6481	6340	5945
30°	6142	5946	5356
35°	5819	5495	4954
40°	5487	5008	4508
45°	5173	4629	4075
50°	4788	4297	3634
55°	4429	3894	3256
60°	4058	3479	2915
65°	3571	3046	2583
70°	2943	2666	2194
75°	2337	2042	2142
80°	1568	1475	1376
85°	976	1173	1371

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5173 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	4.7
10°-20°	175.0	13.0
20°-30°	242.3	18.0
30°-40°	258.4	19.2
40°-50°	235.7	17.5
50°-60°	184.7	13.7
60°-70°	120.4	8.9
70°-80°	53.3	4.0
80°-90°	11.4	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°	481.1	35.8
0°-40°	739.5	55.0
0°-60°	1159.9	86.2
0°-90°	1345.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1345.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	673	672	672	672	672	64
15°	630	630	623	617	615	177
25°	546	543	534	515	501	251
35°	443	440	418	386	377	277
45°	340	333	304	279	268	262
55°	236	229	208	183	174	212
65°	140	132	120	122	101	138
75°	56	52	49	47	52	60
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	685.1	685.1	685.1	685.1	685.1
2.5°	680.4	680.4	680.4	679.6	679.6
5°	673.2	672.5	672.5	671.7	671.7
7.5°	667.7	666.9	666.1	665.3	663.7
10°	659.8	659.8	659.0	655.0	654.2
12.5°	647.1	646.3	643.1	637.6	636.0
15°	629.7	629.7	623.3	617.0	614.6
17.5°	610.7	609.9	602.0	595.6	592.5
20°	590.1	588.5	580.6	570.3	564.7
22.5°	567.1	567.1	557.6	544.1	538.6
25°	545.7	542.6	533.8	514.8	500.6
27.5°	521.2	516.4	506.9	480.0	463.4
30°	494.2	491.9	478.4	443.5	430.9
32.5°	468.9	464.9	450.7	414.2	403.9
35°	442.8	439.6	418.2	386.5	377.0
37.5°	416.6	412.7	385.7	360.4	348.5
40°	390.5	385.7	356.4	333.5	320.8
42.5°	365.9	359.6	331.1	306.5	292.3
45°	339.8	332.7	304.1	278.8	267.7
47.5°	313.7	307.3	281.2	255.0	242.4
50°	285.9	280.4	256.6	230.5	217.0
52.5°	263.0	254.2	231.3	205.1	194.1
55°	236.0	228.9	207.5	183.0	173.5
57.5°	211.5	204.3	184.5	161.6	153.7
60°	188.5	178.2	161.6	141.8	135.4
62.5°	163.2	155.2	141.0	124.4	132.3
65°	140.2	132.3	119.6	122.0	101.4
67.5°	114.8	110.9	99.8	88.7	85.5
70°	93.5	88.7	84.7	72.9	69.7
72.5°	74.5	69.7	64.2	57.8	55.4
75°	56.2	52.3	49.1	46.7	51.5
77.5°	38.8	37.2	34.9	32.5	31.7
80°	25.3	24.6	23.8	23.0	22.2
82.5°	15.0	15.0	15.0	15.0	15.0
85°	7.9	8.7	9.5	10.3	11.1
87.5°	4.8	4.8	5.5	6.3	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)