

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: P559821

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-81-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559821
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-LD4-1LO-35-UNV-81-96-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1073.0 lumens
Efficiency: N/A
Efficacy: 91.7 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

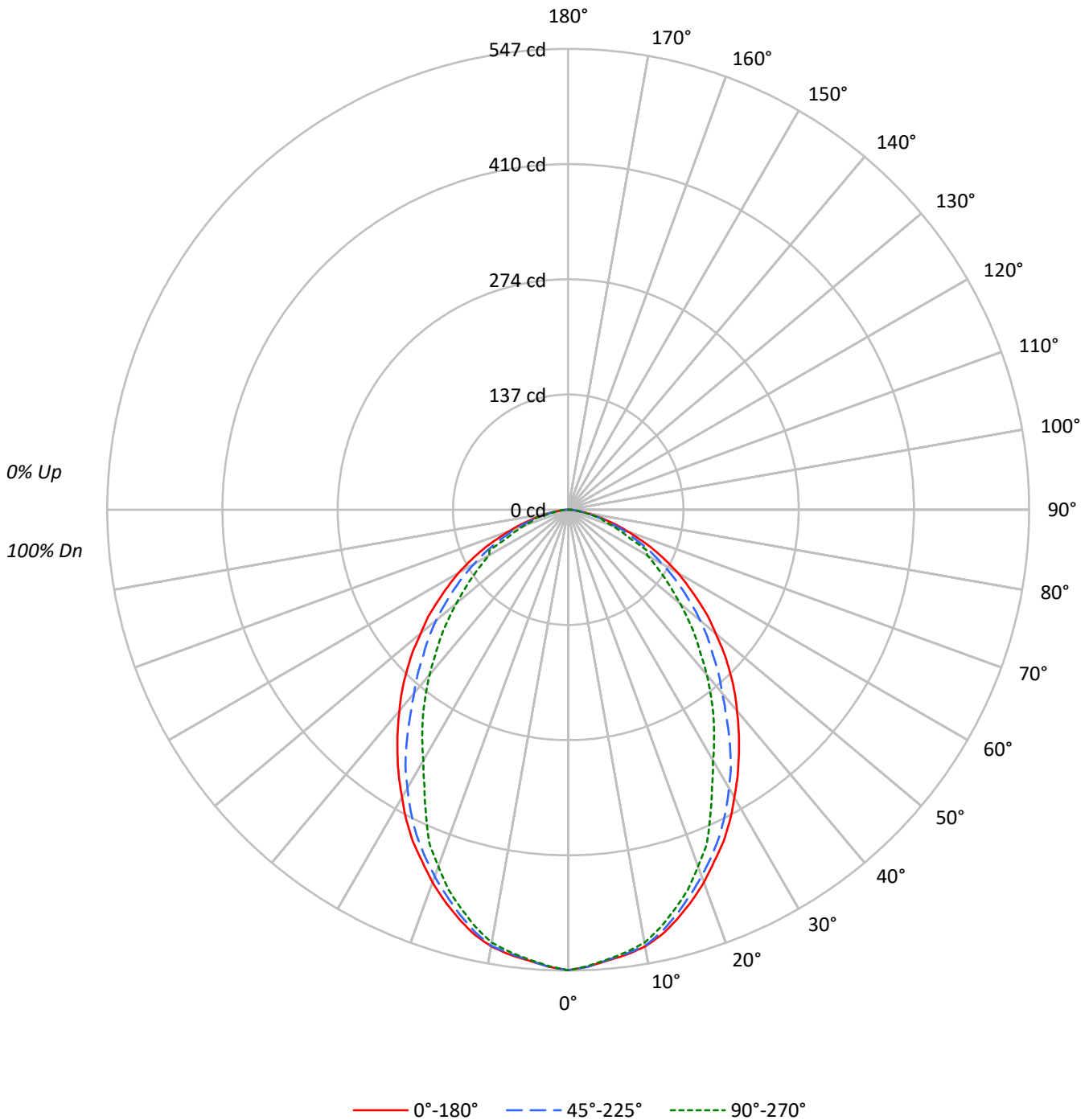
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2942	2942	2942
5°	2902	2898	2895
10°	2877	2873	2852
15°	2799	2771	2732
20°	2696	2653	2580
25°	2586	2529	2371
30°	2450	2372	2136
35°	2321	2192	1976
40°	2188	1997	1798
45°	2063	1846	1626
50°	1910	1714	1449
55°	1767	1554	1299
60°	1619	1387	1164
65°	1424	1215	1030
70°	1174	1064	875
75°	934	815	855
80°	626	589	549
85°	389	469	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2063 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.9	4.7
10°-20°	139.6	13.0
20°-30°	193.3	18.0
30°-40°	206.1	19.2
40°-50°	188.0	17.5
50°-60°	147.3	13.7
60°-70°	96.0	8.9
70°-80°	42.5	4.0
80°-90°	9.1	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
0°-30°	383.8	35.8
0°-40°	589.9	55.0
0°-60°	925.3	86.2
0°-90°	1073.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1073.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	547	547	547	547	547	
5°	537	536	536	536	536	51
15°	502	502	497	492	490	141
25°	435	433	426	411	399	200
35°	353	351	334	308	301	221
45°	271	265	243	222	214	209
55°	188	183	166	146	138	169
65°	112	106	95	97	81	110
75°	45	42	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	546.6	546.6	546.6	546.6	546.6
2.5°	542.8	542.8	542.8	542.1	542.1
5°	537.1	536.5	536.5	535.8	535.8
7.5°	532.7	532.0	531.4	530.8	529.5
10°	526.4	526.4	525.7	522.6	521.9
12.5°	516.2	515.6	513.1	508.7	507.4
15°	502.3	502.3	497.3	492.2	490.3
17.5°	487.2	486.5	480.2	475.2	472.6
20°	470.7	469.5	463.2	454.9	450.5
22.5°	452.4	452.4	444.8	434.1	429.7
25°	435.4	432.8	425.9	410.7	399.3
27.5°	415.8	412.0	404.4	382.9	369.6
30°	394.3	392.4	381.7	353.8	343.7
32.5°	374.1	370.9	359.5	330.5	322.3
35°	353.2	350.7	333.6	308.4	300.8
37.5°	332.4	329.2	307.7	287.5	278.0
40°	311.5	307.7	284.3	266.0	255.9
42.5°	291.9	286.9	264.1	244.5	233.2
45°	271.1	265.4	242.6	222.4	213.6
47.5°	250.2	245.2	224.3	203.5	193.4
50°	228.1	223.7	204.7	183.9	173.1
52.5°	209.8	202.8	184.5	163.7	154.8
55°	188.3	182.6	165.6	146.0	138.4
57.5°	168.7	163.0	147.2	128.9	122.6
60°	150.4	142.2	128.9	113.1	108.1
62.5°	130.2	123.8	112.5	99.2	105.5
65°	111.8	105.5	95.4	97.3	80.9
67.5°	91.6	88.5	79.6	70.8	68.2
70°	74.6	70.8	67.6	58.1	55.6
72.5°	59.4	55.6	51.2	46.1	44.2
75°	44.9	41.7	39.2	37.3	41.1
77.5°	31.0	29.7	27.8	25.9	25.3
80°	20.2	19.6	19.0	18.3	17.7
82.5°	12.0	12.0	12.0	12.0	12.0
85°	6.3	7.0	7.6	8.2	8.8
87.5°	3.8	3.8	4.4	5.1	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)