

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: P559453

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559453
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-35-UNV-82-96-EDD
Description: 1X1 FSR TROFFER WITH .187 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: 1451.0 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: 1' x H: 0')
CIE Type: Direct

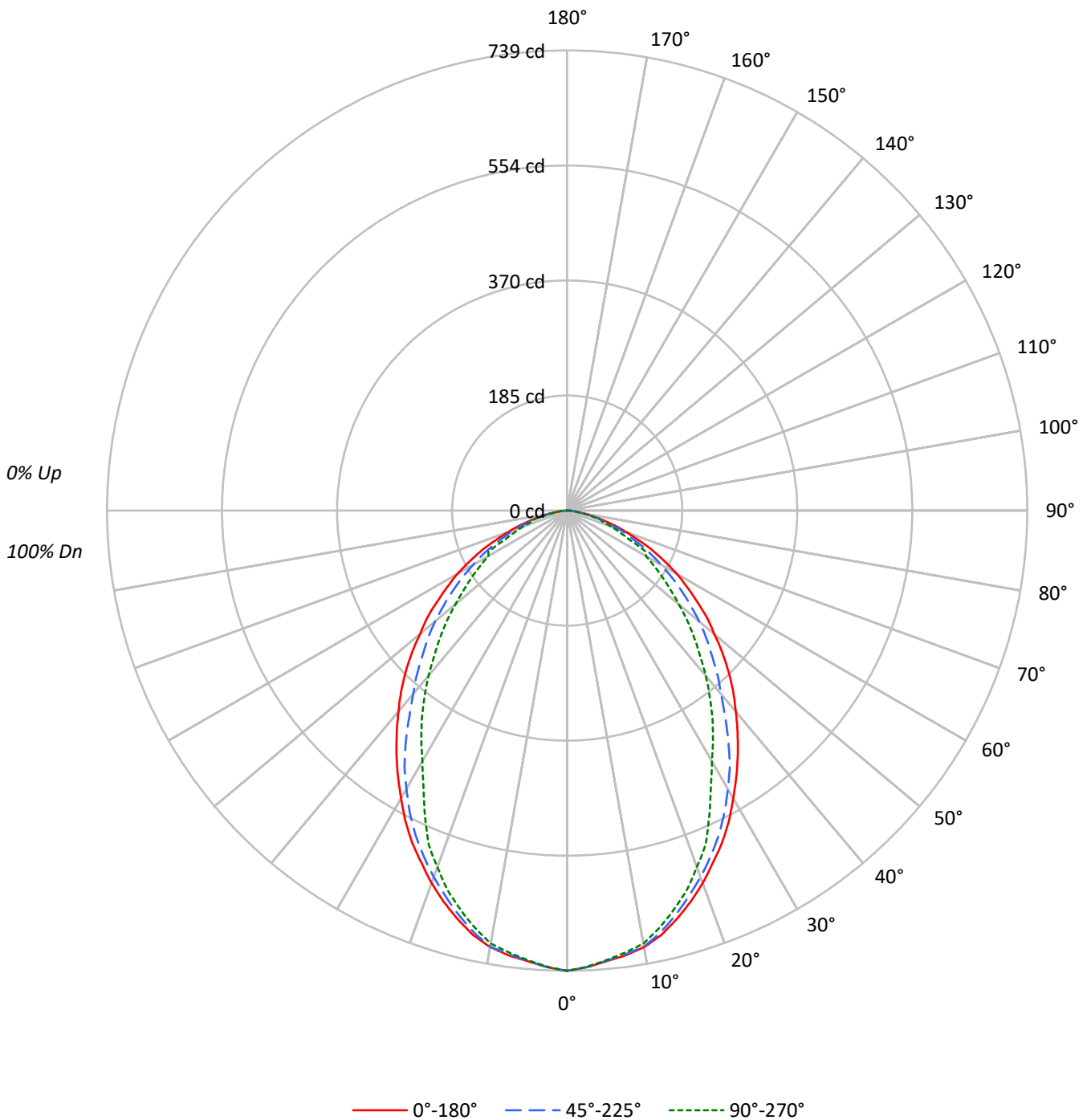
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7956	7956	7956
5°	7848	7838	7829
10°	7780	7770	7714
15°	7570	7494	7389
20°	7292	7174	6978
25°	6992	6840	6413
30°	6627	6415	5777
35°	6277	5929	5344
40°	5920	5403	4863
45°	5581	4994	4396
50°	5166	4635	3920
55°	4778	4202	3511
60°	4379	3752	3145
65°	3851	3286	2786
70°	3172	2877	2367
75°	2524	2204	2308
80°	1692	1587	1481
85°	1050	1272	1482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5581 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	4.7
10°-20°	188.8	13.0
20°-30°	261.4	18.0
30°-40°	278.7	19.2
40°-50°	254.3	17.5
50°-60°	199.2	13.7
60°-70°	129.8	8.9
70°-80°	57.5	4.0
80°-90°	12.3	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°	519.0	35.8
0°-40°	797.8	55.0
0°-60°	1251.3	86.2
0°-90°	1451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	726	725	725	725	725	69
15°	679	679	672	666	663	191
25°	589	585	576	555	540	270
35°	478	474	451	417	407	299
45°	367	359	328	301	289	282
55°	255	247	224	197	187	228
65°	151	143	129	132	109	149
75°	61	56	53	50	56	65
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	739.1	739.1	739.1	739.1	739.1
2.5°	734.0	734.0	734.0	733.1	733.1
5°	726.3	725.4	725.4	724.6	724.6
7.5°	720.3	719.5	718.6	717.8	716.0
10°	711.8	711.8	710.9	706.7	705.8
12.5°	698.1	697.3	693.8	687.9	686.1
15°	679.3	679.3	672.5	665.6	663.1
17.5°	658.8	657.9	649.4	642.6	639.1
20°	636.6	634.9	626.3	615.2	609.2
22.5°	611.8	611.8	601.5	587.0	581.0
25°	588.7	585.3	575.9	555.4	540.0
27.5°	562.2	557.1	546.9	517.8	499.9
30°	533.2	530.6	516.1	478.5	464.8
32.5°	505.8	501.6	486.2	446.9	435.8
35°	477.7	474.2	451.2	417.0	406.7
37.5°	449.5	445.2	416.1	388.8	376.0
40°	421.3	416.1	384.5	359.7	346.1
42.5°	394.8	387.9	357.2	330.7	315.3
45°	366.6	358.9	328.1	300.8	288.8
47.5°	338.4	331.5	303.3	275.1	261.5
50°	308.5	302.5	276.8	248.7	234.1
52.5°	283.7	274.3	249.5	221.3	209.3
55°	254.6	246.9	223.9	197.4	187.1
57.5°	228.1	220.5	199.1	174.3	165.8
60°	203.4	192.3	174.3	153.0	146.1
62.5°	176.0	167.5	152.1	134.2	142.7
65°	151.2	142.7	129.0	131.6	109.4
67.5°	123.9	119.6	107.7	95.7	92.3
70°	100.8	95.7	91.4	78.6	75.2
72.5°	80.3	75.2	69.2	62.4	59.8
75°	60.7	56.4	53.0	50.4	55.5
77.5°	41.9	40.2	37.6	35.0	34.2
80°	27.3	26.5	25.6	24.8	23.9
82.5°	16.2	16.2	16.2	16.2	16.2
85°	8.5	9.4	10.3	11.1	12.0
87.5°	5.1	5.1	6.0	6.8	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)