

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: P559048

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559048
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-LD4-2HI-35-UNV-81-88-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1296.0 lumens
Efficiency: N/A
Efficacy: 60.0 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

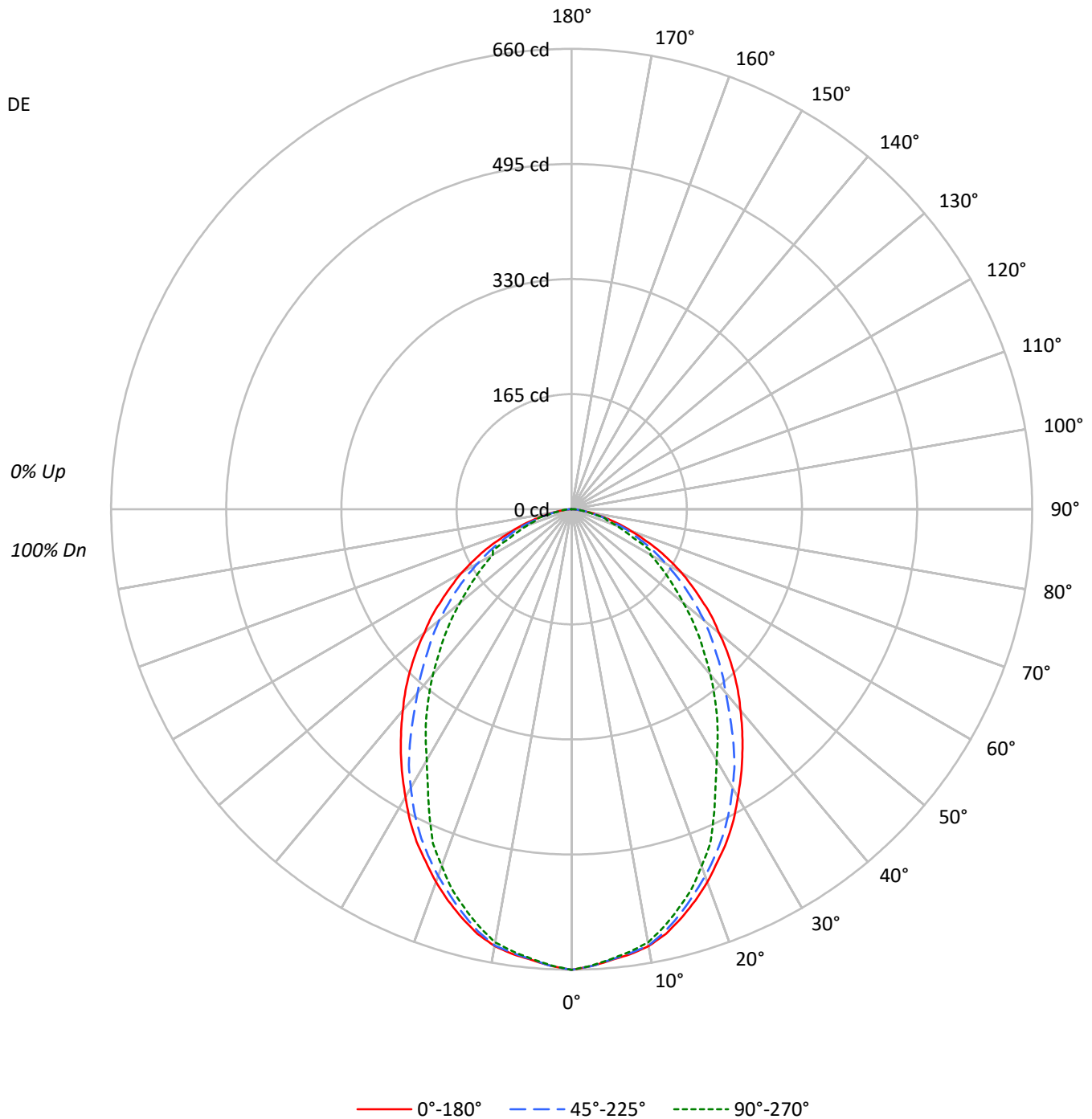
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7106	7106	7106
5°	7009	7002	6993
10°	6948	6941	6890
15°	6761	6693	6599
20°	6513	6408	6234
25°	6245	6109	5728
30°	5919	5730	5161
35°	5606	5296	4774
40°	5288	4825	4343
45°	4984	4462	3927
50°	4613	4141	3502
55°	4267	3753	3136
60°	3909	3352	2809
65°	3441	2934	2488
70°	2836	2571	2115
75°	2254	1967	2063
80°	1512	1420	1327
85°	939	1136	1321

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4984 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	4.7
10°-20°	168.6	13.0
20°-30°	233.5	18.0
30°-40°	249.0	19.2
40°-50°	227.1	17.5
50°-60°	177.9	13.7
60°-70°	116.0	8.9
70°-80°	51.4	4.0
80°-90°	11.0	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°	463.6	35.8
0°-40°	712.6	55.0
0°-60°	1117.6	86.2
0°-90°	1296.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1296.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	649	648	648	647	647	62
15°	607	607	601	594	592	171
25°	526	523	514	496	482	241
35°	427	424	403	372	363	267
45°	327	320	293	269	258	252
55°	227	221	200	176	167	204
65°	135	128	115	118	98	133
75°	54	50	47	45	50	58
85°	8	8	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	660.2	660.2	660.2	660.2	660.2
2.5°	655.6	655.6	655.6	654.8	654.8
5°	648.7	648.0	648.0	647.2	647.2
7.5°	643.4	642.6	641.8	641.1	639.6
10°	635.7	635.7	635.0	631.2	630.4
12.5°	623.5	622.8	619.7	614.4	612.8
15°	606.7	606.7	600.6	594.5	592.2
17.5°	588.4	587.7	580.0	573.9	570.9
20°	568.6	567.1	559.4	549.5	544.2
22.5°	546.4	546.4	537.3	524.3	519.0
25°	525.8	522.8	514.4	496.1	482.3
27.5°	502.2	497.6	488.4	462.5	446.5
30°	476.2	473.9	461.0	427.4	415.2
32.5°	451.8	448.0	434.3	399.2	389.2
35°	426.6	423.6	403.0	372.4	363.3
37.5°	401.4	397.6	371.7	347.3	335.8
40°	376.3	371.7	343.4	321.3	309.1
42.5°	352.6	346.5	319.0	295.4	281.6
45°	327.4	320.5	293.1	268.6	258.0
47.5°	302.2	296.1	270.9	245.7	233.5
50°	275.5	270.2	247.3	222.1	209.1
52.5°	253.4	245.0	222.9	197.7	187.0
55°	227.4	220.6	200.0	176.3	167.1
57.5°	203.8	196.9	177.8	155.7	148.1
60°	181.6	171.7	155.7	136.6	130.5
62.5°	157.2	149.6	135.8	119.8	127.5
65°	135.1	127.5	115.2	117.5	97.7
67.5°	110.7	106.8	96.2	85.5	82.4
70°	90.1	85.5	81.7	70.2	67.2
72.5°	71.7	67.2	61.8	55.7	53.4
75°	54.2	50.4	47.3	45.0	49.6
77.5°	37.4	35.9	33.6	31.3	30.5
80°	24.4	23.7	22.9	22.1	21.4
82.5°	14.5	14.5	14.5	14.5	14.5
85°	7.6	8.4	9.2	9.9	10.7
87.5°	4.6	4.6	5.3	6.1	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)