

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: P559054

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-81-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559054
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-81-97-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1466.0 lumens
Efficiency: N/A
Efficacy: 67.9 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

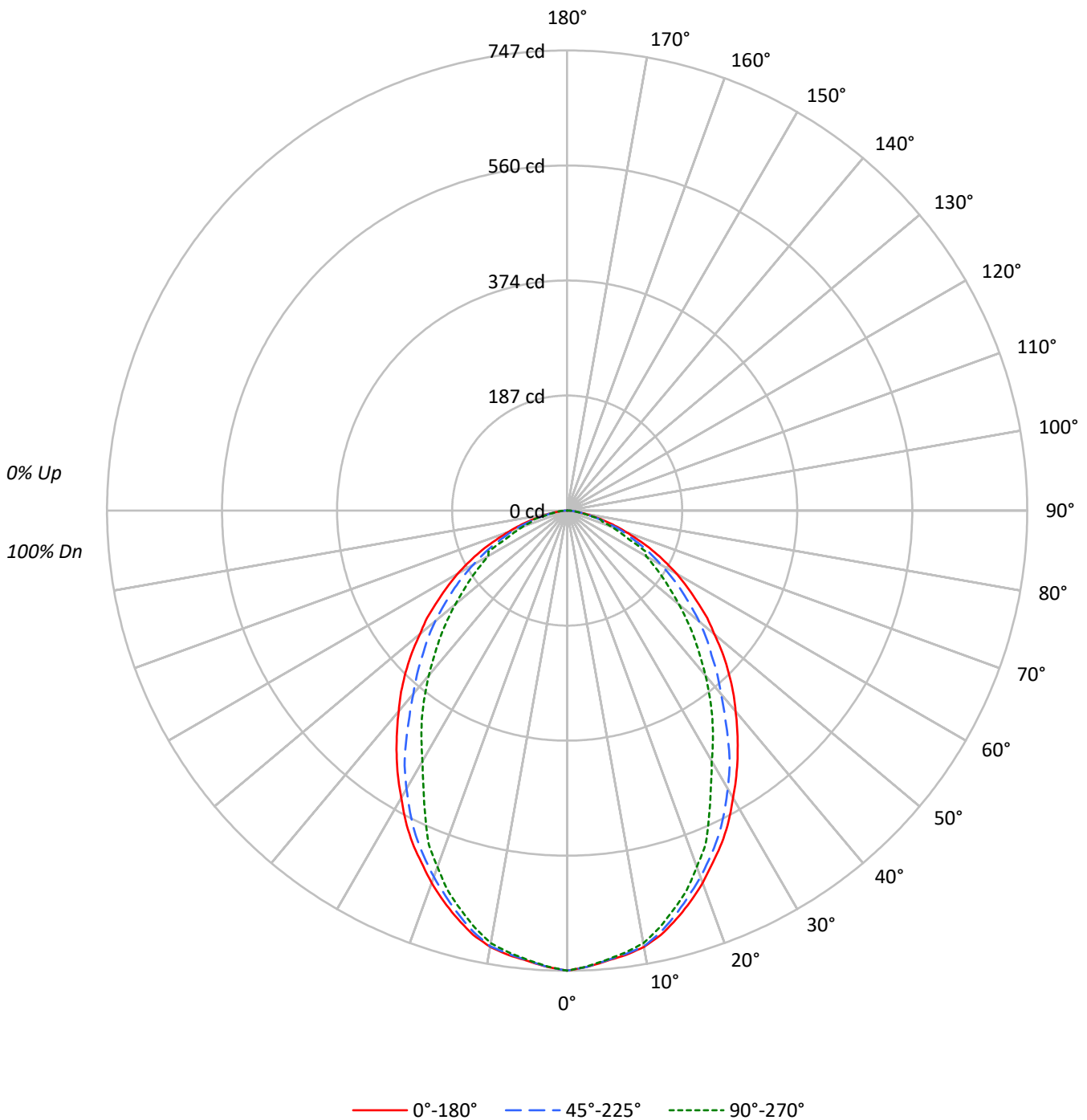
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8038	8038	8038
5°	7929	7919	7910
10°	7860	7851	7794
15°	7648	7571	7465
20°	7368	7249	7050
25°	7064	6911	6480
30°	6696	6481	5837
35°	6342	5989	5399
40°	5980	5459	4912
45°	5638	5046	4442
50°	5220	4684	3960
55°	4829	4245	3549
60°	4424	3791	3178
65°	3892	3321	2814
70°	3207	2908	2392
75°	2549	2225	2333
80°	1711	1605	1500
85°	1062	1284	1494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.5	4.7
10°-20°	190.8	13.0
20°-30°	264.1	18.0
30°-40°	281.6	19.2
40°-50°	256.9	17.5
50°-60°	201.3	13.7
60°-70°	131.2	8.9
70°-80°	58.1	4.0
80°-90°	12.5	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°	524.4	35.8
0°-40°	806.0	55.0
0°-60°	1264.2	86.2
0°-90°	1466.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1466.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	747	747	747	747	747	
5°	734	733	733	732	732	70
15°	686	686	679	672	670	193
25°	595	591	582	561	546	273
35°	483	479	456	421	411	302
45°	370	363	332	304	292	285
55°	257	250	226	199	189	231
65°	153	144	130	133	110	151
75°	61	57	54	51	56	66
85°	9	10	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°	746.8	746.8	746.8	746.8	746.8
2.5°	741.6	741.6	741.6	740.7	740.7
5°	733.8	732.9	732.9	732.1	732.1
7.5°	727.8	726.9	726.0	725.2	723.5
10°	719.1	719.1	718.3	714.0	713.1
12.5°	705.3	704.5	701.0	695.0	693.2
15°	686.3	686.3	679.4	672.5	669.9
17.5°	665.6	664.7	656.1	649.2	645.8
20°	643.2	641.4	632.8	621.6	615.5
22.5°	618.1	618.1	607.8	593.1	587.0
25°	594.8	591.4	581.9	561.1	545.6
27.5°	568.1	562.9	552.5	523.2	505.0
30°	538.7	536.1	521.4	483.5	469.6
32.5°	511.1	506.8	491.2	451.5	440.3
35°	482.6	479.1	455.8	421.3	410.9
37.5°	454.1	449.8	420.4	392.8	379.9
40°	425.6	420.4	388.5	363.5	349.6
42.5°	398.8	391.9	360.9	334.1	318.6
45°	370.4	362.6	331.5	303.9	291.8
47.5°	341.9	335.0	306.5	278.0	264.2
50°	311.7	305.6	279.7	251.2	236.5
52.5°	286.6	277.1	252.1	223.6	211.5
55°	257.3	249.5	226.2	199.4	189.1
57.5°	230.5	222.7	201.2	176.1	167.5
60°	205.5	194.2	176.1	154.5	147.6
62.5°	177.8	169.2	153.7	135.5	144.2
65°	152.8	144.2	130.4	132.9	110.5
67.5°	125.2	120.9	108.8	96.7	93.2
70°	101.9	96.7	92.4	79.4	76.0
72.5°	81.2	76.0	69.9	63.0	60.4
75°	61.3	57.0	53.5	50.9	56.1
77.5°	42.3	40.6	38.0	35.4	34.5
80°	27.6	26.8	25.9	25.0	24.2
82.5°	16.4	16.4	16.4	16.4	16.4
85°	8.6	9.5	10.4	11.2	12.1
87.5°	5.2	5.2	6.0	6.9	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)