

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: P559646

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-82-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559646
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-LD4-1HI-35-UNV-82-97-EDD-90
Description: 1X2 FSR TROFFER WITH .187 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: 1421.0 lumens
Efficiency: N/A
Efficacy: 65.8 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

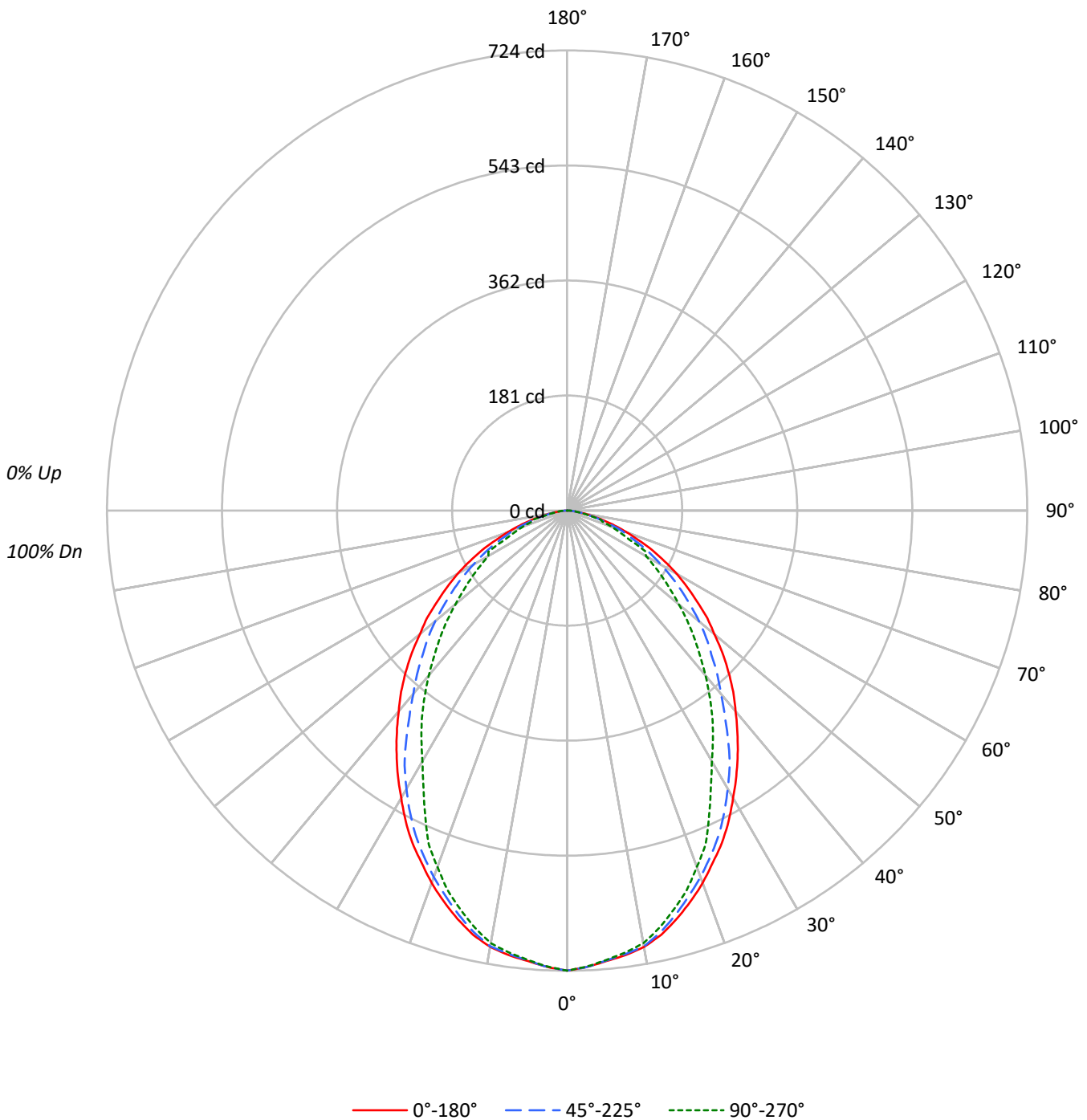
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	3895	3895	3895
5°	3843	3838	3834
10°	3810	3805	3777
15°	3707	3670	3618
20°	3570	3513	3417
25°	3424	3349	3141
30°	3245	3141	2829
35°	3074	2903	2617
40°	2898	2646	2381
45°	2732	2445	2152
50°	2529	2270	1920
55°	2340	2057	1720
60°	2144	1837	1540
65°	1886	1610	1364
70°	1553	1408	1158
75°	1235	1079	1131
80°	831	778	725
85°	519	618	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2732 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	4.7
10°-20°	184.9	13.0
20°-30°	256.0	18.0
30°-40°	273.0	19.2
40°-50°	249.0	17.5
50°-60°	195.1	13.7
60°-70°	127.2	8.9
70°-80°	56.3	4.0
80°-90°	12.1	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°	508.3	35.8
0°-40°	781.3	55.0
0°-60°	1225.4	86.2
0°-90°	1421.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1421.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	711	710	710	710	710	68
15°	665	665	659	652	649	187
25°	577	573	564	544	529	265
35°	468	464	442	408	398	292
45°	359	352	321	295	283	277
55°	249	242	219	193	183	224
65°	148	140	126	129	107	146
75°	59	55	52	49	54	64
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°	723.8	723.8	723.8	723.8	723.8
2.5°	718.8	718.8	718.8	718.0	718.0
5°	711.3	710.4	710.4	709.6	709.6
7.5°	705.4	704.6	703.8	702.9	701.2
10°	697.1	697.1	696.2	692.0	691.2
12.5°	683.7	682.8	679.5	673.6	672.0
15°	665.3	665.3	658.6	651.9	649.4
17.5°	645.2	644.3	636.0	629.3	625.9
20°	623.4	621.7	613.4	602.5	596.6
22.5°	599.2	599.2	589.1	574.9	569.0
25°	576.6	573.2	564.0	543.9	528.9
27.5°	550.6	545.6	535.6	507.1	489.5
30°	522.2	519.7	505.4	468.6	455.2
32.5°	495.4	491.2	476.1	437.7	426.8
35°	467.8	464.4	441.8	408.4	398.3
37.5°	440.2	436.0	407.5	380.7	368.2
40°	412.5	407.5	376.6	352.3	338.9
42.5°	386.6	379.9	349.8	323.8	308.8
45°	359.0	351.5	321.3	294.6	282.8
47.5°	331.4	324.7	297.1	269.5	256.1
50°	302.1	296.2	271.1	243.5	229.3
52.5°	277.8	268.6	244.3	216.7	205.0
55°	249.4	241.8	219.2	193.3	183.3
57.5°	223.4	215.9	195.0	170.7	162.3
60°	199.2	188.3	170.7	149.8	143.1
62.5°	172.4	164.0	149.0	131.4	139.7
65°	148.1	139.7	126.4	128.9	107.1
67.5°	121.3	117.2	105.4	93.7	90.4
70°	98.7	93.7	89.5	77.0	73.6
72.5°	78.7	73.6	67.8	61.1	58.6
75°	59.4	55.2	51.9	49.4	54.4
77.5°	41.0	39.3	36.8	34.3	33.5
80°	26.8	25.9	25.1	24.3	23.4
82.5°	15.9	15.9	15.9	15.9	15.9
85°	8.4	9.2	10.0	10.9	11.7
87.5°	5.0	5.0	5.9	6.7	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)