

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: P560159

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-82-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560159
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-LD4-1STD-50-UNV-82-97-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1422.0 lumens
Efficiency: N/A
Efficacy: 85.7 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

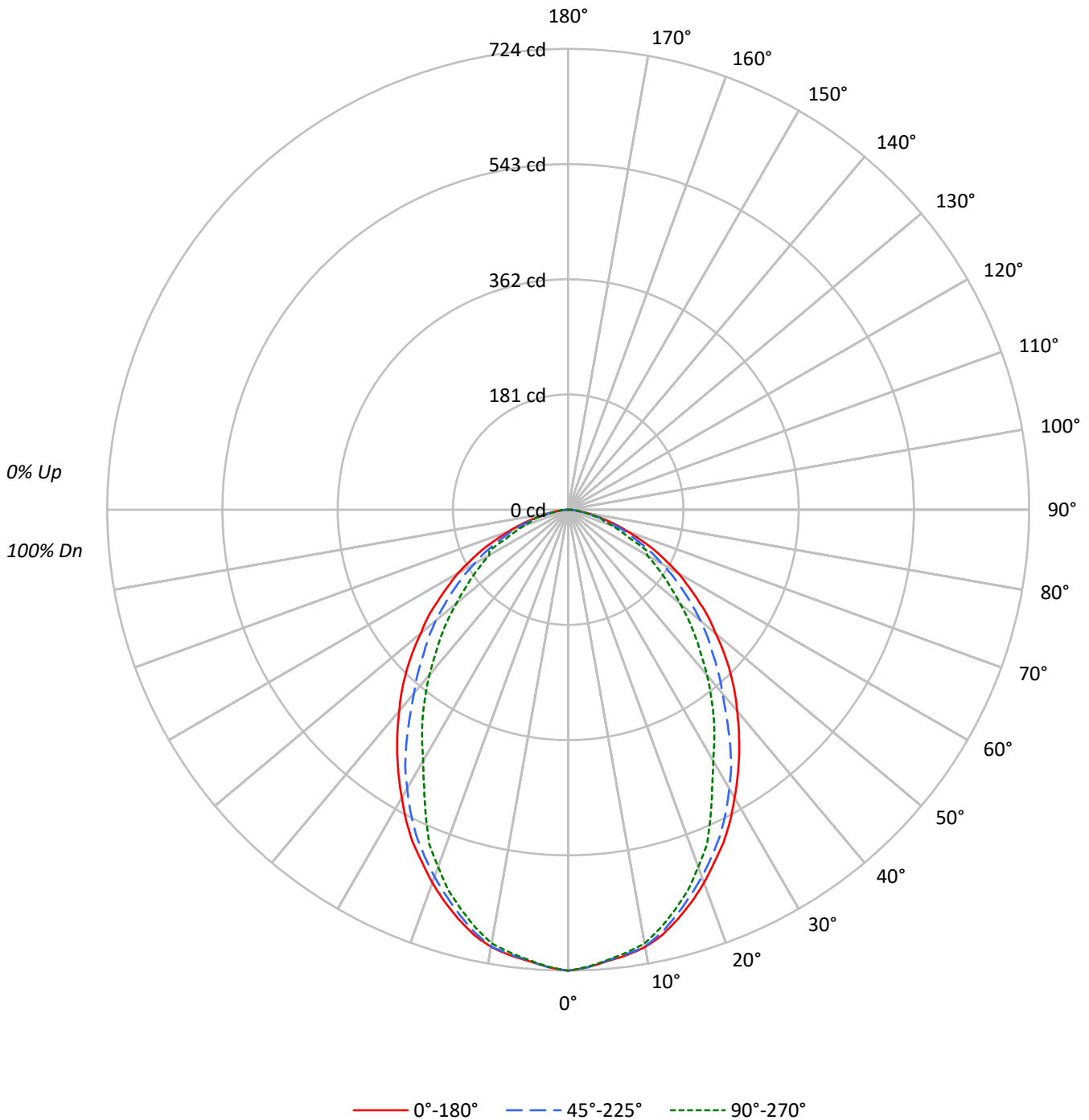
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3898	3898	3898
5°	3846	3841	3836
10°	3812	3807	3780
15°	3709	3672	3621
20°	3573	3515	3420
25°	3426	3352	3143
30°	3247	3143	2831
35°	3075	2905	2619
40°	2900	2647	2382
45°	2734	2448	2154
50°	2531	2272	1921
55°	2341	2059	1721
60°	2145	1838	1541
65°	1887	1610	1365
70°	1555	1410	1160
75°	1237	1079	1131
80°	831	778	725
85°	519	618	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2734 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	4.7
10°-20°	185.0	13.0
20°-30°	256.2	18.0
30°-40°	273.2	19.2
40°-50°	249.2	17.5
50°-60°	195.2	13.7
60°-70°	127.2	8.9
70°-80°	56.4	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°	508.7	35.8
0°-40°	781.8	55.0
0°-60°	1226.3	86.2
0°-90°	1422.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1422.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	712	711	711	710	710	68
15°	666	666	659	652	650	187
25°	577	574	564	544	529	265
35°	468	465	442	409	399	293
45°	359	352	322	295	283	277
55°	250	242	219	193	183	224
65°	148	140	126	129	107	146
75°	60	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°	724.3	724.3	724.3	724.3	724.3
2.5°	719.3	719.3	719.3	718.5	718.5
5°	711.8	710.9	710.9	710.1	710.1
7.5°	705.9	705.1	704.3	703.4	701.7
10°	697.6	697.6	696.7	692.5	691.7
12.5°	684.2	683.3	680.0	674.1	672.4
15°	665.7	665.7	659.0	652.3	649.8
17.5°	645.6	644.8	636.4	629.7	626.4
20°	623.9	622.2	613.8	602.9	597.1
22.5°	599.6	599.6	589.5	575.3	569.4
25°	577.0	573.6	564.4	544.3	529.2
27.5°	551.0	546.0	535.9	507.5	489.9
30°	522.5	520.0	505.8	468.9	455.5
32.5°	495.7	491.6	476.5	438.0	427.1
35°	468.1	464.8	442.1	408.6	398.6
37.5°	440.5	436.3	407.8	381.0	368.5
40°	412.8	407.8	376.8	352.5	339.1
42.5°	386.9	380.2	350.0	324.1	309.0
45°	359.2	351.7	321.6	294.8	283.0
47.5°	331.6	324.9	297.3	269.6	256.2
50°	302.3	296.4	271.3	243.7	229.4
52.5°	278.0	268.8	244.5	216.9	205.2
55°	249.5	242.0	219.4	193.4	183.4
57.5°	223.6	216.0	195.1	170.8	162.5
60°	199.3	188.4	170.8	149.9	143.2
62.5°	172.5	164.1	149.1	131.5	139.8
65°	148.2	139.8	126.4	129.0	107.2
67.5°	121.4	117.2	105.5	93.8	90.4
70°	98.8	93.8	89.6	77.0	73.7
72.5°	78.7	73.7	67.8	61.1	58.6
75°	59.5	55.3	51.9	49.4	54.4
77.5°	41.0	39.4	36.8	34.3	33.5
80°	26.8	26.0	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)