

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: P559887

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-81-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559887
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-LD4-1LO-40-UNV-81-97-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1044.0 lumens
Efficiency: N/A
Efficacy: 89.2 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

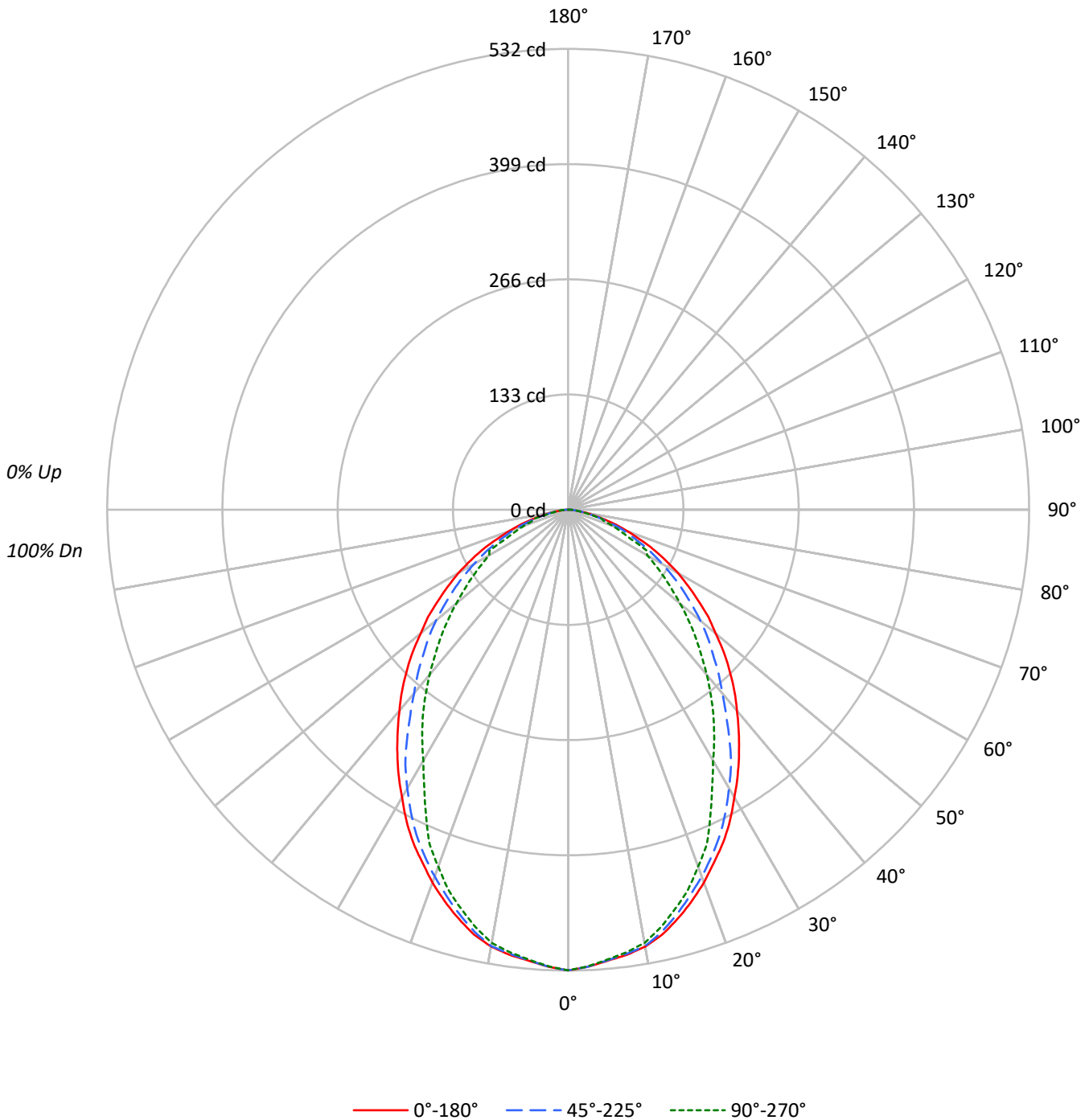
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2862	2862	2862
5°	2823	2820	2816
10°	2799	2795	2775
15°	2724	2696	2658
20°	2623	2581	2511
25°	2515	2461	2308
30°	2384	2307	2078
35°	2258	2133	1922
40°	2129	1944	1749
45°	2007	1797	1582
50°	1858	1668	1411
55°	1719	1512	1263
60°	1575	1350	1131
65°	1386	1182	1002
70°	1141	1035	851
75°	909	792	832
80°	611	570	533
85°	377	457	531

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2007 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.5	4.7
10°-20°	135.9	13.0
20°-30°	188.1	18.0
30°-40°	200.5	19.2
40°-50°	183.0	17.5
50°-60°	143.3	13.7
60°-70°	93.4	8.9
70°-80°	41.4	4.0
80°-90°	8.9	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°	373.4	35.8
0°-40°	574.0	55.0
0°-60°	900.3	86.2
0°-90°	1044.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1044.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	532	532	532	532	532	
5°	523	522	522	521	521	50
15°	489	489	484	479	477	137
25°	424	421	414	400	389	194
35°	344	341	325	300	293	215
45°	264	258	236	216	208	203
55°	183	178	161	142	135	164
65°	109	103	93	95	79	107
75°	44	41	38	36	40	47
85°	6	7	7	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	531.8	531.8	531.8	531.8	531.8
2.5°	528.1	528.1	528.1	527.5	527.5
5°	522.6	522.0	522.0	521.3	521.3
7.5°	518.3	517.7	517.0	516.4	515.2
10°	512.1	512.1	511.5	508.4	507.8
12.5°	502.3	501.7	499.2	494.9	493.7
15°	488.8	488.8	483.8	478.9	477.1
17.5°	474.0	473.4	467.2	462.3	459.9
20°	458.0	456.8	450.6	442.7	438.4
22.5°	440.2	440.2	432.8	422.4	418.1
25°	423.6	421.1	414.4	399.6	388.6
27.5°	404.5	400.8	393.5	372.6	359.7
30°	383.6	381.8	371.3	344.3	334.4
32.5°	364.0	360.9	349.8	321.5	313.5
35°	343.7	341.2	324.6	300.0	292.6
37.5°	323.4	320.3	299.4	279.7	270.5
40°	303.1	299.4	276.7	258.8	249.0
42.5°	284.0	279.1	257.0	237.9	226.9
45°	263.7	258.2	236.1	216.4	207.8
47.5°	243.5	238.5	218.3	198.0	188.1
50°	221.9	217.6	199.2	178.9	168.5
52.5°	204.1	197.3	179.5	159.2	150.6
55°	183.2	177.7	161.1	142.0	134.6
57.5°	164.2	158.6	143.2	125.4	119.3
60°	146.3	138.3	125.4	110.0	105.1
62.5°	126.6	120.5	109.4	96.5	102.7
65°	108.8	102.7	92.8	94.7	78.7
67.5°	89.1	86.1	77.5	68.9	66.4
70°	72.5	68.9	65.8	56.6	54.1
72.5°	57.8	54.1	49.8	44.9	43.0
75°	43.7	40.6	38.1	36.3	40.0
77.5°	30.1	28.9	27.1	25.2	24.6
80°	19.7	19.1	18.4	17.8	17.2
82.5°	11.7	11.7	11.7	11.7	11.7
85°	6.1	6.8	7.4	8.0	8.6
87.5°	3.7	3.7	4.3	4.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)