

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: P560732

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-82-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560732
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-LD4-2STD-50-UNV-82-96-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2513.0 lumens
Efficiency: N/A
Efficacy: 75.5 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

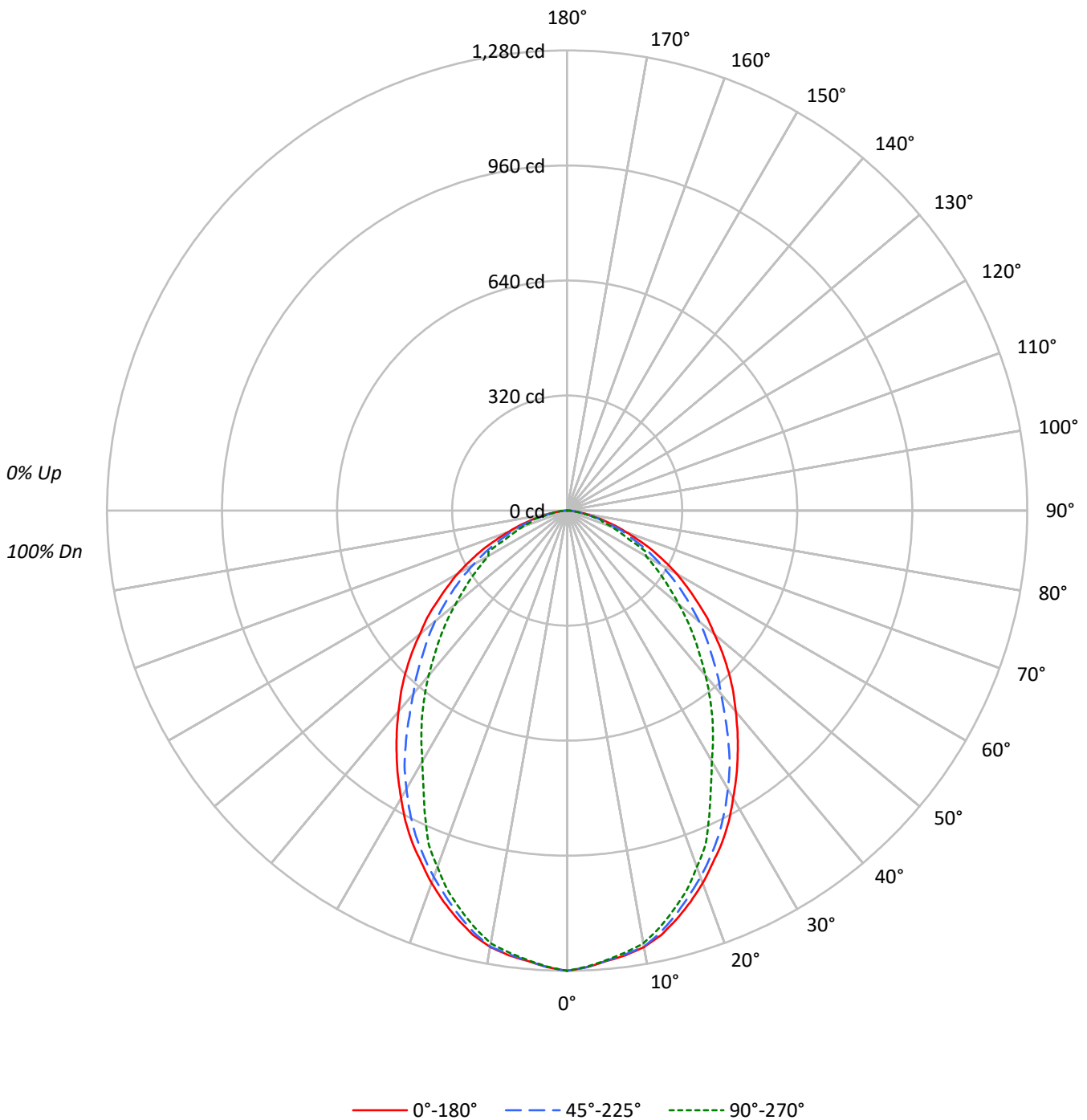
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	6889	6889	6889
5°	6796	6788	6780
10°	6737	6729	6680
15°	6555	6489	6399
20°	6314	6212	6043
25°	6055	5923	5554
30°	5739	5555	5003
35°	5435	5134	4628
40°	5126	4678	4210
45°	4832	4325	3807
50°	4473	4015	3395
55°	4138	3638	3041
60°	3791	3250	2724
65°	3335	2846	2412
70°	2747	2491	2049
75°	2185	1909	2000
80°	1469	1376	1283
85°	914	1099	1278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4832 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.2	4.7
10°-20°	327.0	13.0
20°-30°	452.7	18.0
30°-40°	482.7	19.2
40°-50°	440.4	17.5
50°-60°	345.0	13.7
60°-70°	224.9	8.9
70°-80°	99.6	4.0
80°-90°	21.4	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°	898.9	35.8
0°-40°	1381.7	55.0
0°-60°	2167.1	86.2
0°-90°	2513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2513.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1258	1256	1256	1255	1255	119
15°	1176	1176	1165	1153	1148	331
25°	1020	1014	997	962	935	468
35°	827	821	781	722	704	517
45°	635	622	568	521	500	489
55°	441	428	388	342	324	396
65°	262	247	224	228	189	258
75°	105	98	92	87	96	113
85°	15	16	18	19	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1280.1	1280.1	1280.1	1280.1	1280.1
2.5°	1271.2	1271.2	1271.2	1269.7	1269.7
5°	1257.9	1256.4	1256.4	1254.9	1254.9
7.5°	1247.5	1246.1	1244.6	1243.1	1240.1
10°	1232.7	1232.7	1231.3	1223.9	1222.4
12.5°	1209.1	1207.6	1201.7	1191.3	1188.3
15°	1176.5	1176.5	1164.7	1152.8	1148.4
17.5°	1141.0	1139.5	1124.7	1112.9	1106.9
20°	1102.5	1099.5	1084.7	1065.5	1055.1
22.5°	1059.6	1059.6	1041.8	1016.7	1006.3
25°	1019.6	1013.7	997.4	961.9	935.3
27.5°	973.8	964.9	947.1	896.8	865.7
30°	923.4	919.0	893.8	828.7	805.0
32.5°	876.1	868.7	842.0	774.0	754.7
35°	827.2	821.3	781.4	722.2	704.4
37.5°	778.4	771.0	720.7	673.3	651.1
40°	729.6	720.7	665.9	623.0	599.3
42.5°	683.7	671.9	618.6	572.7	546.1
45°	634.9	621.5	568.3	520.9	500.2
47.5°	586.0	574.2	525.4	476.5	452.8
50°	534.2	523.9	479.5	430.6	405.5
52.5°	491.3	475.0	432.1	383.3	362.6
55°	441.0	427.7	387.7	341.9	324.1
57.5°	395.1	381.8	344.8	301.9	287.1
60°	352.2	333.0	301.9	264.9	253.1
62.5°	304.9	290.1	263.4	232.3	247.1
65°	261.9	247.1	223.5	227.9	189.4
67.5°	214.6	207.2	186.5	165.7	159.8
70°	174.6	165.7	158.3	136.1	130.2
72.5°	139.1	130.2	119.9	108.0	103.6
75°	105.1	97.7	91.8	87.3	96.2
77.5°	72.5	69.6	65.1	60.7	59.2
80°	47.4	45.9	44.4	42.9	41.4
82.5°	28.1	28.1	28.1	28.1	28.1
85°	14.8	16.3	17.8	19.2	20.7
87.5°	8.9	8.9	10.4	11.8	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)