

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: P590127

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-93-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590127
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1STD-50-UNV-93-86-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1946.0 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

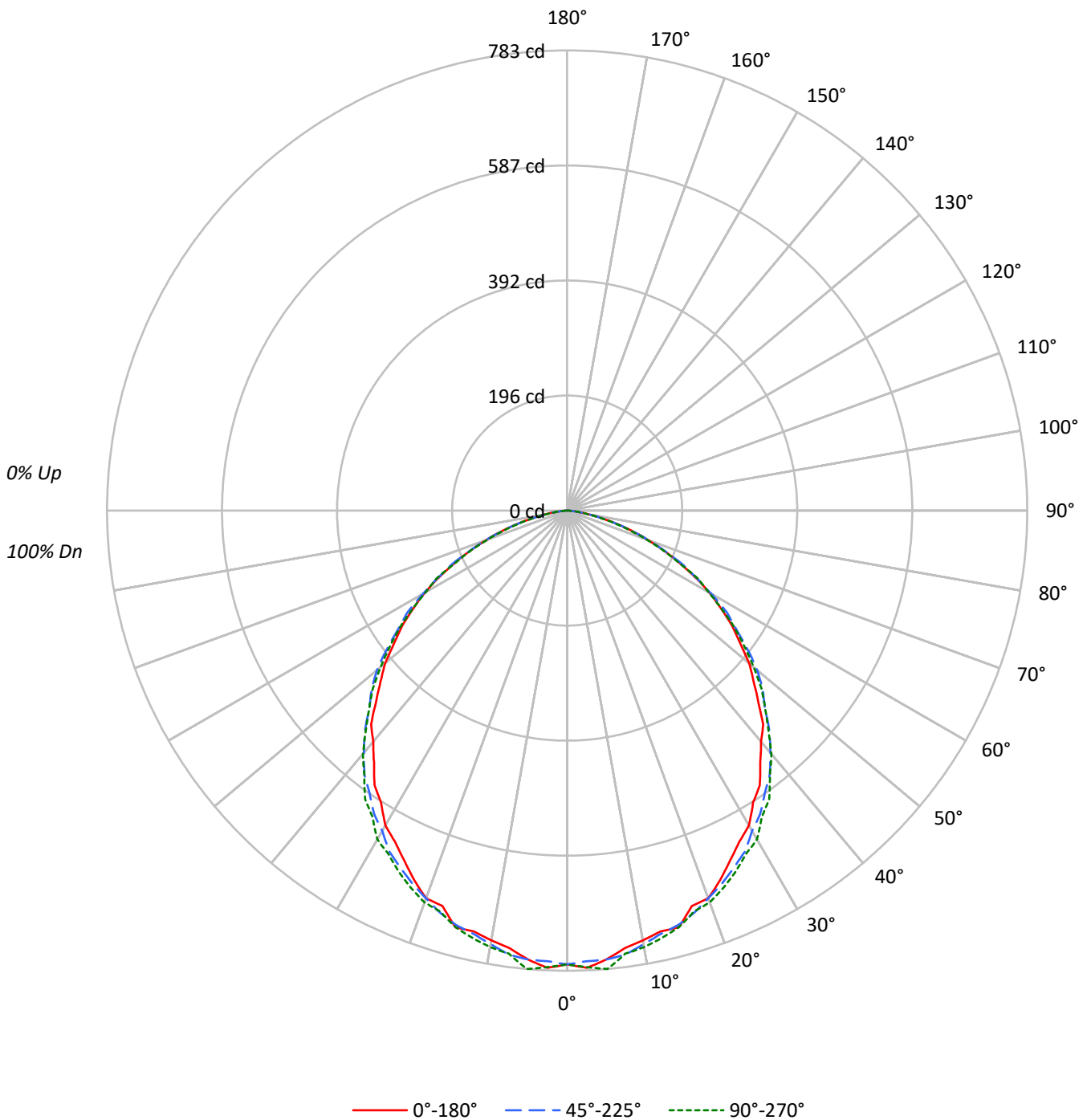
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2078	2078	2078
5°	2071	2072	2115
10°	2029	2047	2061
15°	2045	2034	2045
20°	2010	2010	2032
25°	1949	1991	2013
30°	1922	1956	2008
35°	1876	1926	1969
40°	1803	1890	1899
45°	1749	1811	1814
50°	1692	1768	1734
55°	1612	1643	1631
60°	1507	1522	1495
65°	1344	1378	1335
70°	1153	1157	1125
75°	913	911	875
80°	612	595	572
85°	333	330	309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1858 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	3.7
10°-20°	205.8	10.6
20°-30°	308.4	15.8
30°-40°	365.5	18.8
40°-50°	366.2	18.8
50°-60°	310.8	16.0
60°-70°	209.6	10.8
70°-80°	92.1	4.7
80°-90°	15.0	0.8
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°	586.9	30.2
0°-40°	952.4	48.9
0°-60°	1629.4	83.7
0°-90°	1946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1946.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	772	772	772	772	772	
5°	767	765	767	765	783	72
15°	734	726	730	734	734	205
25°	656	660	671	679	678	303
35°	571	573	586	600	599	355
45°	460	468	476	488	477	356
55°	344	341	350	348	348	306
65°	211	208	216	208	210	210
75°	88	86	88	81	84	94
85°	11	10	11	10	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	772.1	772.1	772.1	772.1	772.1
2.5°	778.8	772.9	767.4	773.8	777.7
5°	766.6	764.8	766.9	764.6	783.1
7.5°	750.9	757.8	761.8	759.3	760.4
10°	742.5	740.1	749.0	755.2	754.3
12.5°	733.5	737.1	737.6	744.3	744.9
15°	734.0	725.6	730.1	733.8	734.1
17.5°	705.5	714.7	717.8	726.5	715.7
20°	702.0	695.4	702.0	710.9	709.5
22.5°	680.6	673.1	687.5	695.4	694.9
25°	656.3	659.9	670.6	679.4	678.0
27.5°	634.9	639.1	654.5	666.5	658.8
30°	618.5	616.4	629.4	640.1	646.1
32.5°	589.1	596.7	611.8	622.5	616.8
35°	571.2	572.9	586.2	599.8	599.4
37.5°	540.0	547.9	566.6	570.3	566.9
40°	513.4	521.3	538.1	542.2	540.5
42.5°	493.8	495.2	509.6	514.3	506.8
45°	459.6	468.2	475.9	488.2	476.6
47.5°	430.5	434.5	451.2	454.5	448.4
50°	404.1	405.5	422.3	418.2	414.2
52.5°	370.9	376.7	386.2	385.4	380.7
55°	343.5	341.2	350.2	347.8	347.7
57.5°	310.7	314.7	322.1	318.3	312.2
60°	280.0	280.1	282.8	278.5	277.7
62.5°	245.8	247.0	247.6	242.4	250.9
65°	211.1	208.3	216.4	208.2	209.6
67.5°	179.0	180.4	179.6	174.5	176.5
70°	146.5	148.3	147.0	141.2	143.0
72.5°	116.8	114.6	116.0	108.7	112.1
75°	87.8	86.0	87.6	81.4	84.2
77.5°	59.8	61.2	60.2	56.9	58.8
80°	39.5	38.4	38.4	36.5	36.9
82.5°	23.0	21.9	21.6	21.0	21.9
85°	10.8	10.5	10.7	10.4	10.0
87.5°	3.9	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)