

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: P590126

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-93-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590126
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-93-85-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1968.0 lumens
Efficiency: N/A
Efficacy: 118.6 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

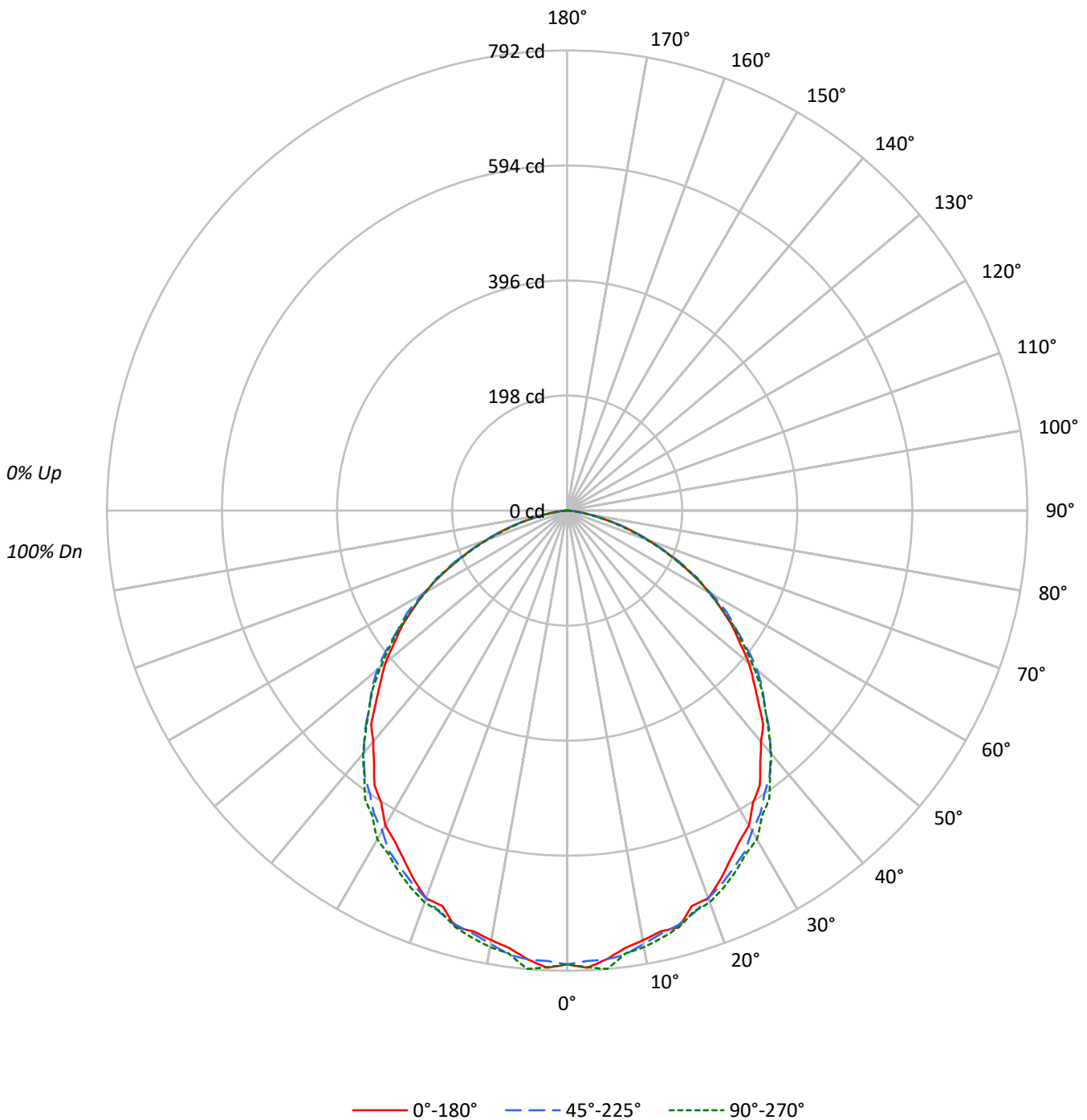
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2101	2101	2101
5°	2094	2095	2139
10°	2052	2070	2084
15°	2068	2057	2068
20°	2033	2033	2055
25°	1971	2014	2036
30°	1944	1978	2030
35°	1898	1947	1991
40°	1824	1912	1920
45°	1769	1832	1834
50°	1711	1788	1754
55°	1630	1662	1650
60°	1524	1539	1512
65°	1359	1394	1349
70°	1166	1170	1138
75°	923	921	886
80°	618	601	578
85°	337	333	312

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1879 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.5	3.7
10°-20°	208.2	10.6
20°-30°	311.9	15.8
30°-40°	369.6	18.8
40°-50°	370.3	18.8
50°-60°	314.4	16.0
60°-70°	211.9	10.8
70°-80°	93.1	4.7
80°-90°	15.1	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°	593.5	30.2
0°-40°	963.1	48.9
0°-60°	1647.8	83.7
0°-90°	1968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1968.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	775	774	776	773	792	73
15°	742	734	738	742	742	207
25°	664	667	678	687	686	307
35°	578	579	593	606	606	359
45°	465	474	481	494	482	360
55°	347	345	354	352	352	309
65°	213	211	219	210	212	212
75°	89	87	89	82	85	95
85°	11	11	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°	780.9	780.9	780.9	780.9	780.9
2.5°	787.6	781.7	776.1	782.6	786.5
5°	775.3	773.5	775.6	773.3	791.9
7.5°	759.4	766.3	770.4	767.8	769.0
10°	750.9	748.5	757.5	763.7	762.8
12.5°	741.8	745.5	746.0	752.7	753.3
15°	742.3	733.8	738.3	742.1	742.4
17.5°	713.5	722.8	725.9	734.7	723.8
20°	710.0	703.2	710.0	718.9	717.5
22.5°	688.3	680.7	695.3	703.2	702.7
25°	663.7	667.3	678.2	687.1	685.7
27.5°	642.1	646.4	661.9	674.1	666.2
30°	625.5	623.4	636.5	647.4	653.4
32.5°	595.7	603.4	618.7	629.5	623.8
35°	577.7	579.4	592.8	606.5	606.1
37.5°	546.1	554.1	573.0	576.8	573.3
40°	519.2	527.2	544.2	548.4	546.6
42.5°	499.4	500.8	515.4	520.1	512.6
45°	464.8	473.5	481.3	493.7	482.0
47.5°	435.3	439.4	456.3	459.6	453.5
50°	408.6	410.0	427.1	422.9	418.9
52.5°	375.1	381.0	390.6	389.8	385.0
55°	347.4	345.1	354.2	351.8	351.7
57.5°	314.3	318.3	325.8	321.9	315.8
60°	283.2	283.3	286.0	281.7	280.9
62.5°	248.6	249.8	250.4	245.1	253.8
65°	213.4	210.6	218.9	210.5	211.9
67.5°	181.1	182.5	181.7	176.4	178.5
70°	148.2	150.0	148.7	142.8	144.6
72.5°	118.2	115.9	117.4	109.9	113.3
75°	88.8	87.0	88.6	82.4	85.2
77.5°	60.5	61.9	60.9	57.6	59.5
80°	39.9	38.8	38.8	36.9	37.3
82.5°	23.3	22.2	21.9	21.3	22.2
85°	10.9	10.6	10.8	10.5	10.1
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)