

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: P590061

Luminaire Tested: FSR-24-2-LD4-1STD-35-UNV-93-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590061
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-35-UNV-93-84-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1955.0 lumens
Efficiency: N/A
Efficacy: 117.8 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

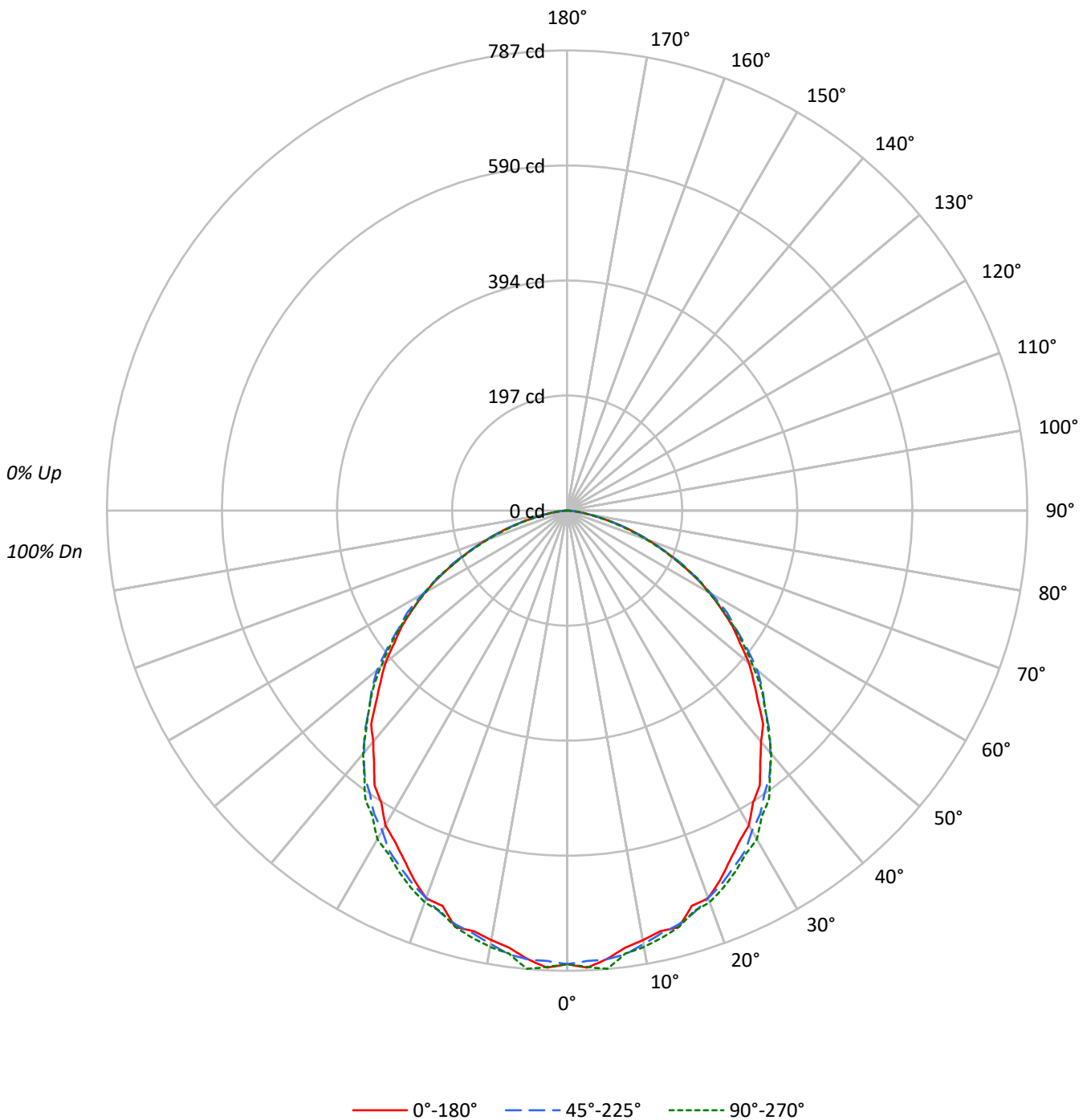
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590061

CATALOG NUMBER: FSR-24-2-LD4-1STD-35-UNV-93-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590061

CATALOG NUMBER: FSR-24-2-LD4-1STD-35-UNV-93-84-EDD

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°	2087	2087	2087
5°	2081	2081	2125
10°	2038	2056	2071
15°	2054	2043	2055
20°	2020	2020	2041
25°	1958	2000	2022
30°	1931	1965	2017
35°	1885	1935	1978
40°	1812	1899	1907
45°	1757	1819	1822
50°	1699	1776	1742
55°	1619	1650	1639
60°	1514	1529	1502
65°	1350	1384	1340
70°	1158	1162	1130
75°	917	915	880
80°	615	598	575
85°	333	330	309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1867 cd/sqm

TEST NUMBER: P590061

CATALOG NUMBER: FSR-24-2-LD4-1STD-35-UNV-93-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.0	3.7
10°-20°	206.8	10.6
20°-30°	309.8	15.8
30°-40°	367.2	18.8
40°-50°	367.9	18.8
50°-60°	312.3	16.0
60°-70°	210.5	10.8
70°-80°	92.5	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°	589.6	30.2
0°-40°	956.8	48.9
0°-60°	1636.9	83.7
0°-90°	1955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	770	768	770	768	787	73
15°	737	729	733	737	738	205
25°	659	663	674	683	681	305
35°	574	576	589	602	602	356
45°	462	470	478	490	479	357
55°	345	343	352	349	349	307
65°	212	209	217	209	210	211
75°	88	86	88	82	85	95
85°	11	10	11	10	10	16
90°	0	0	0	0	0	



TEST NUMBER: P590061

CATALOG NUMBER: FSR-24-2-LD4-1STD-35-UNV-93-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	775.7	775.7	775.7	775.7	775.7
2.5°	782.4	776.5	771.0	777.4	781.3
5°	770.2	768.4	770.5	768.2	786.7
7.5°	754.4	761.3	765.3	762.8	763.9
10°	745.9	743.5	752.5	758.7	757.8
12.5°	736.9	740.5	741.0	747.8	748.4
15°	737.4	728.9	733.4	737.2	737.5
17.5°	708.8	718.0	721.1	729.8	719.0
20°	705.3	698.6	705.3	714.2	712.8
22.5°	683.8	676.2	690.7	698.6	698.1
25°	659.3	662.9	673.7	682.6	681.1
27.5°	637.9	642.1	657.5	669.6	661.8
30°	621.4	619.3	632.3	643.1	649.1
32.5°	591.8	599.4	614.6	625.4	619.7
35°	573.9	575.6	588.9	602.5	602.1
37.5°	542.5	550.4	569.2	573.0	569.5
40°	515.8	523.7	540.6	544.7	543.0
42.5°	496.1	497.5	512.0	516.7	509.2
45°	461.7	470.3	478.1	490.5	478.8
47.5°	432.5	436.5	453.3	456.6	450.5
50°	405.9	407.3	424.3	420.1	416.1
52.5°	372.6	378.5	388.0	387.2	382.5
55°	345.1	342.8	351.8	349.4	349.3
57.5°	312.2	316.2	323.6	319.8	313.7
60°	281.3	281.4	284.1	279.8	279.0
62.5°	247.0	248.2	248.8	243.5	252.1
65°	212.0	209.2	217.4	209.1	210.5
67.5°	179.9	181.3	180.5	175.3	177.3
70°	147.2	149.0	147.7	141.8	143.6
72.5°	117.4	115.2	116.6	109.2	112.6
75°	88.2	86.4	88.0	81.8	84.6
77.5°	60.1	61.5	60.5	57.2	59.1
80°	39.7	38.6	38.6	36.7	37.1
82.5°	23.1	22.0	21.7	21.1	22.0
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)