

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: P590130

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-93-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590130
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-93-94-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2013.0 lumens
Efficiency: N/A
Efficacy: 121.3 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

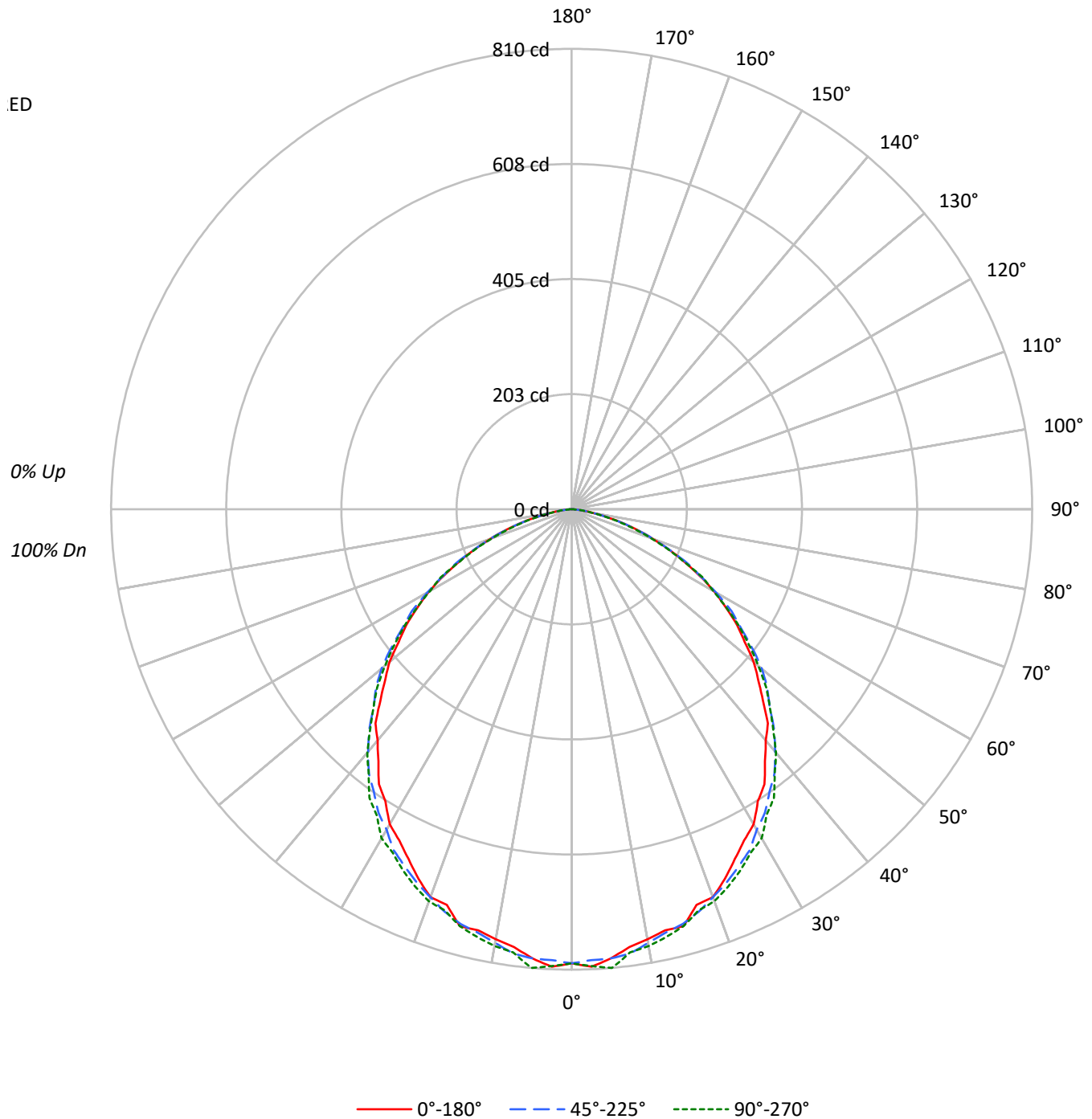
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2149	2149	2149
5°	2142	2143	2188
10°	2099	2117	2132
15°	2115	2104	2116
20°	2080	2080	2102
25°	2016	2060	2083
30°	1988	2023	2077
35°	1941	1992	2037
40°	1866	1956	1964
45°	1809	1874	1876
50°	1750	1829	1794
55°	1667	1700	1688
60°	1559	1575	1546
65°	1390	1426	1380
70°	1193	1197	1164
75°	945	942	906
80°	632	615	592
85°	343	340	318

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1922 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	3.7
10°-20°	212.9	10.6
20°-30°	319.0	15.8
30°-40°	378.1	18.8
40°-50°	378.8	18.8
50°-60°	321.5	16.0
60°-70°	216.8	10.8
70°-80°	95.3	4.7
80°-90°	15.5	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°	607.1	30.2
0°-40°	985.2	48.9
0°-60°	1685.5	83.7
0°-90°	2013.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2013.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	799	799	799	799	799	
5°	793	791	793	791	810	75
15°	759	750	755	759	759	212
25°	679	683	694	703	701	314
35°	591	593	606	620	620	367
45°	475	484	492	505	493	368
55°	355	353	362	360	360	316
65°	218	215	224	215	217	217
75°	91	89	91	84	87	97
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	798.7	798.7	798.7	798.7	798.7
2.5°	805.6	799.5	793.9	800.5	804.5
5°	793.0	791.2	793.3	791.0	810.1
7.5°	776.7	783.9	788.0	785.4	786.5
10°	768.1	765.6	774.8	781.2	780.2
12.5°	758.8	762.5	763.0	769.9	770.6
15°	759.3	750.5	755.2	759.1	759.4
17.5°	729.8	739.3	742.5	751.5	740.3
20°	726.2	719.3	726.2	735.4	733.9
22.5°	704.0	696.3	711.2	719.3	718.8
25°	678.9	682.6	693.7	702.8	701.4
27.5°	656.8	661.1	677.0	689.5	681.5
30°	639.8	637.6	651.0	662.2	668.4
32.5°	609.4	617.2	632.9	643.9	638.0
35°	590.9	592.7	606.4	620.4	620.0
37.5°	558.6	566.8	586.1	590.0	586.4
40°	531.1	539.2	556.7	560.9	559.1
42.5°	510.8	512.2	527.2	532.0	524.3
45°	475.4	484.3	492.3	505.0	493.0
47.5°	445.3	449.4	466.7	470.1	463.9
50°	418.0	419.4	436.8	432.6	428.5
52.5°	383.6	389.7	399.5	398.7	393.8
55°	355.4	353.0	362.3	359.8	359.7
57.5°	321.4	325.6	333.2	329.3	323.0
60°	289.7	289.8	292.6	288.1	287.3
62.5°	254.3	255.5	256.2	250.7	259.6
65°	218.3	215.4	223.9	215.3	216.8
67.5°	185.2	186.7	185.8	180.5	182.5
70°	151.6	153.5	152.1	146.0	147.9
72.5°	120.9	118.6	120.0	112.4	115.9
75°	90.9	89.0	90.6	84.3	87.1
77.5°	61.9	63.3	62.3	58.9	60.8
80°	40.8	39.7	39.7	37.7	38.2
82.5°	23.8	22.7	22.4	21.8	22.7
85°	11.1	10.8	11.0	10.7	10.3
87.5°	4.0	4.1	4.1	3.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)