

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: P590125

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-93-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590125
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-93-84-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2008.0 lumens
Efficiency: N/A
Efficacy: 121.0 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

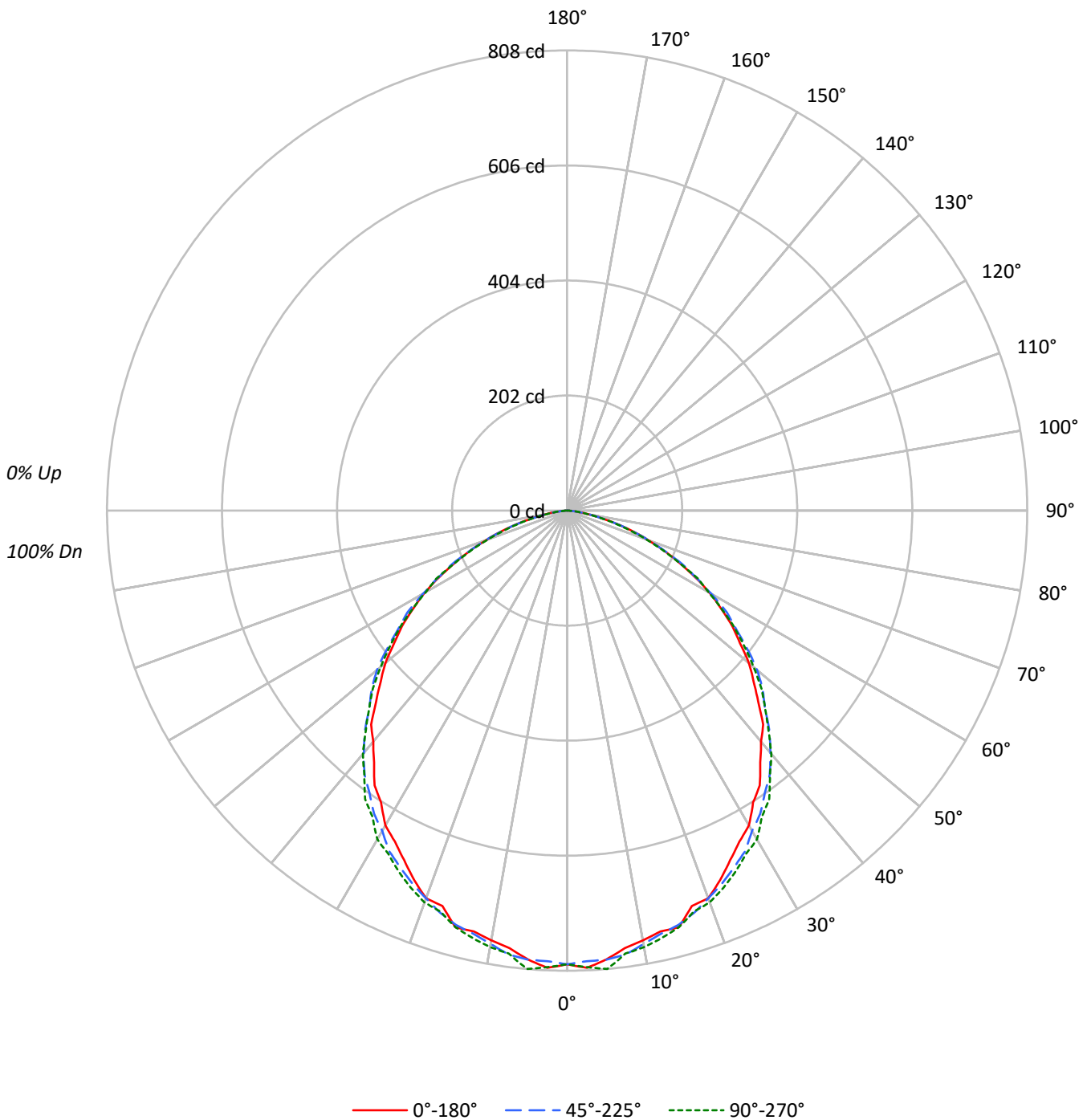
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2144	2144	2144
5°	2137	2138	2183
10°	2094	2112	2127
15°	2110	2099	2110
20°	2074	2074	2096
25°	2011	2055	2077
30°	1983	2018	2072
35°	1936	1987	2032
40°	1861	1951	1959
45°	1805	1869	1872
50°	1745	1824	1789
55°	1663	1696	1683
60°	1555	1570	1542
65°	1387	1422	1377
70°	1190	1194	1161
75°	942	940	904
80°	631	614	590
85°	343	340	318

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1917 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.9	3.7
10°-20°	212.4	10.6
20°-30°	318.2	15.8
30°-40°	377.2	18.8
40°-50°	377.9	18.8
50°-60°	320.7	16.0
60°-70°	216.2	10.8
70°-80°	95.0	4.7
80°-90°	15.4	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°	605.6	30.2
0°-40°	982.7	48.9
0°-60°	1681.3	83.7
0°-90°	2008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2008.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	791	789	791	789	808	75
15°	757	749	753	757	758	211
25°	677	681	692	701	700	313
35°	589	591	605	619	618	366
45°	474	483	491	504	492	367
55°	354	352	361	359	359	315
65°	218	215	223	215	216	217
75°	91	89	90	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°	796.7	796.7	796.7	796.7	796.7
2.5°	803.6	797.5	791.9	798.5	802.5
5°	791.1	789.2	791.4	789.0	808.0
7.5°	774.8	781.9	786.0	783.5	784.6
10°	766.2	763.7	772.9	779.2	778.3
12.5°	756.9	760.6	761.1	768.0	768.6
15°	757.4	748.7	753.3	757.2	757.5
17.5°	728.0	737.5	740.7	749.6	738.5
20°	724.4	717.5	724.4	733.6	732.1
22.5°	702.3	694.6	709.4	717.5	717.0
25°	677.2	680.9	692.0	701.1	699.6
27.5°	655.2	659.5	675.3	687.8	679.8
30°	638.2	636.0	649.4	660.5	666.7
32.5°	607.9	615.7	631.3	642.3	636.5
35°	589.4	591.2	604.9	618.9	618.5
37.5°	557.2	565.4	584.6	588.5	584.9
40°	529.8	537.9	555.3	559.5	557.8
42.5°	509.5	511.0	525.9	530.7	523.0
45°	474.2	483.1	491.1	503.8	491.8
47.5°	444.2	448.3	465.6	469.0	462.7
50°	416.9	418.4	435.8	431.5	427.4
52.5°	382.7	388.7	398.5	397.7	392.9
55°	354.5	352.1	361.4	358.9	358.8
57.5°	320.6	324.8	332.4	328.5	322.2
60°	289.0	289.1	291.8	287.4	286.6
62.5°	253.7	254.9	255.5	250.1	258.9
65°	217.8	214.9	223.3	214.8	216.2
67.5°	184.8	186.2	185.4	180.0	182.1
70°	151.2	153.1	151.7	145.7	147.5
72.5°	120.6	118.3	119.7	112.1	115.6
75°	90.6	88.8	90.4	84.0	86.9
77.5°	61.7	63.2	62.1	58.7	60.7
80°	40.7	39.6	39.6	37.7	38.1
82.5°	23.8	22.6	22.3	21.7	22.6
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)