

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: P589867

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-82-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589867
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-LD4-1HI-35-UNV-82-96-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2206.0 lumens
Efficiency: N/A
Efficacy: 102.1 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

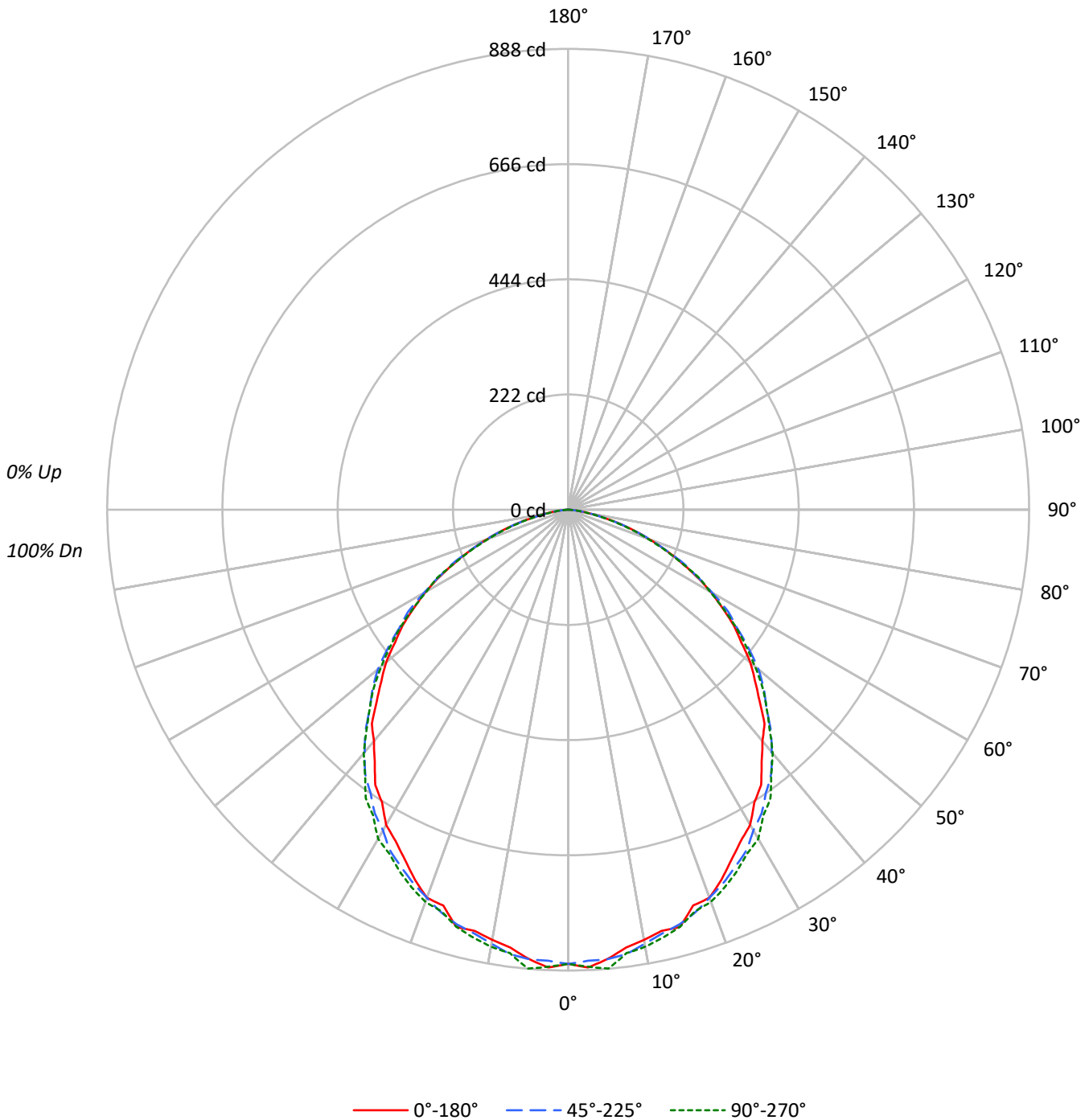
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P589867

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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°	2355	2355	2355
5°	2348	2348	2398
10°	2300	2320	2337
15°	2318	2306	2318
20°	2279	2279	2303
25°	2209	2257	2282
30°	2179	2217	2276
35°	2127	2183	2232
40°	2044	2143	2153
45°	1983	2053	2056
50°	1917	2004	1966
55°	1827	1863	1849
60°	1709	1725	1695
65°	1523	1563	1513
70°	1307	1312	1275
75°	1036	1032	993
80°	694	674	648
85°	377	374	349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2106 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.3	3.7
10°-20°	233.3	10.6
20°-30°	349.6	15.8
30°-40°	414.3	18.8
40°-50°	415.1	18.8
50°-60°	352.4	16.0
60°-70°	237.6	10.8
70°-80°	104.4	4.7
80°-90°	17.0	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°	665.3	30.2
0°-40°	1079.6	48.9
0°-60°	1847.1	83.7
0°-90°	2206.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2206.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	869	867	869	867	888	82
15°	832	822	828	832	832	232
25°	744	748	760	770	769	344
35°	648	650	664	680	679	402
45°	521	531	540	553	540	403
55°	389	387	397	394	394	346
65°	239	236	245	236	238	238
75°	100	98	99	92	96	107
85°	12	12	12	12	11	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	875.3	875.3	875.3	875.3	875.3
2.5°	882.9	876.2	870.0	877.2	881.6
5°	869.1	867.0	869.4	866.8	887.7
7.5°	851.2	859.0	863.5	860.7	861.9
10°	841.7	839.0	849.1	856.1	855.1
12.5°	831.5	835.6	836.2	843.8	844.4
15°	832.1	822.5	827.6	831.9	832.2
17.5°	799.8	810.2	813.7	823.5	811.3
20°	795.8	788.3	795.8	805.9	804.3
22.5°	771.5	763.1	779.3	788.3	787.7
25°	744.0	748.0	760.2	770.2	768.6
27.5°	719.8	724.5	741.9	755.6	746.8
30°	701.1	698.8	713.5	725.7	732.4
32.5°	667.8	676.4	693.6	705.7	699.2
35°	647.6	649.5	664.5	679.9	679.4
37.5°	612.2	621.1	642.3	646.5	642.6
40°	582.0	590.9	610.0	614.7	612.8
42.5°	559.8	561.3	577.7	583.0	574.6
45°	521.0	530.7	539.5	553.4	540.3
47.5°	488.0	492.5	511.5	515.2	508.3
50°	458.0	459.6	478.7	474.1	469.6
52.5°	420.4	427.1	437.8	436.9	431.6
55°	389.4	386.8	397.0	394.3	394.2
57.5°	352.3	356.8	365.1	360.9	354.0
60°	317.5	317.6	320.6	315.8	314.9
62.5°	278.7	280.0	280.7	274.7	284.5
65°	239.2	236.1	245.4	236.0	237.6
67.5°	203.0	204.6	203.6	197.8	200.0
70°	166.1	168.2	166.7	160.0	162.1
72.5°	132.5	130.0	131.5	123.2	127.0
75°	99.6	97.5	99.3	92.3	95.5
77.5°	67.8	69.4	68.3	64.5	66.7
80°	44.8	43.5	43.5	41.4	41.8
82.5°	26.1	24.9	24.5	23.8	24.9
85°	12.2	11.9	12.1	11.8	11.3
87.5°	4.4	4.5	4.5	4.3	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)