

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: CORELITE

Report Number:

Luminaire Tested: SQ4-FA-0U-125D-830-1D-UNV-STD-W-12

Issue Date: 8/1/2024

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-892-4)
Test Lab: INNOVATION CENTER
Issue Date: 8/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-0U-125D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

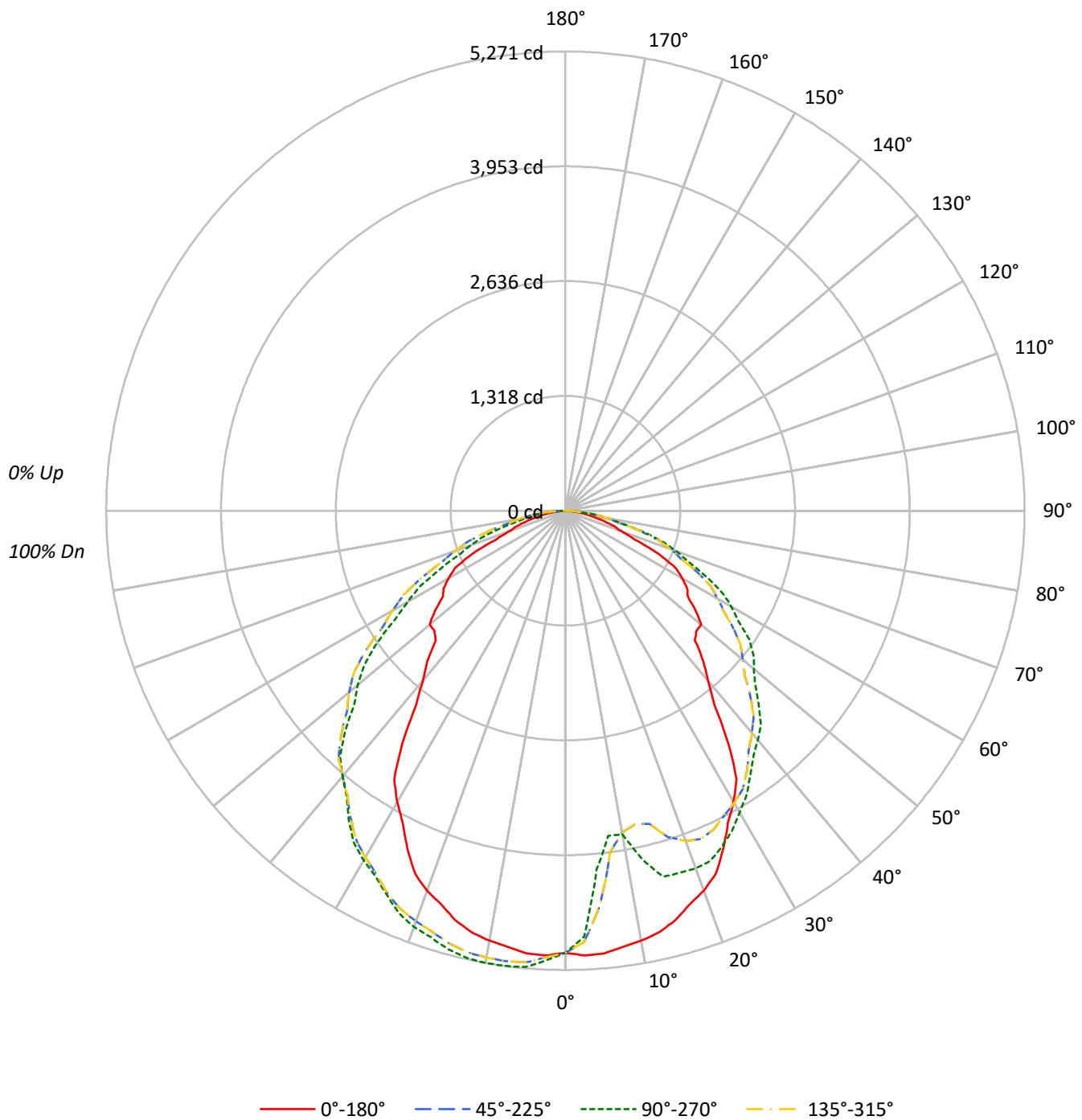
Lumens per Lamp: N/A
Luminaire Lumens: 13149.0 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 140.8
Input Voltage (V): 120
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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	15605	15605	15605	15605
5°	15739	12760	15739	16228
10°	15651	11768	15651	16460
15°	15498	13847	15498	16583
20°	15193	14297	15193	16638
25°	14547	14433	14547	16485
30°	13706	14200	13706	16451
35°	12237	13896	12237	16274
40°	10214	13799	10214	15977
45°	9145	13634	9145	15534
50°	9738	13505	9738	14883
55°	9189	13796	9189	14131
60°	9508	13523	9508	12844
65°	8663	12925	8663	11563
70°	6043	12129	6043	10316
75°	5361	10724	5361	8956
80°	4421	8331	4421	7651
85°	2710	5759	2710	6775

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 15868 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	457.4	3.5
10°-20°	1299.9	9.9
20°-30°	2008.9	15.3
30°-40°	2400.1	18.3
40°-50°	2415.7	18.4
50°-60°	2097.3	16.0
60°-70°	1484.6	11.3
70°-80°	785.3	6.0
80°-90°	199.8	1.5
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°	3766.2	28.6
0°-40°	6166.4	46.9
0°-60°	10679.3	81.2
0°-90°	13149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13149.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	5074	5074	5074	5074	5074	
5°	5098	4133	5098	5256	5098	483
15°	4868	4349	4868	5208	4868	1368
25°	4287	4253	4287	4858	4287	1966
35°	3260	3701	3260	4335	3260	2013
45°	2103	3135	2103	3572	2103	1693
55°	1714	2573	1714	2636	1714	1576
65°	1190	1776	1190	1589	1190	1133
75°	451	902	451	754	451	476
85°	77	163	77	192	77	110
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1
2.5°	5108.7	5070.3	5054.9	5024.2	4966.6	4935.9	4958.9	4920.5	4935.9	4893.6	4935.9
5°	5098.1	5011.7	4939.7	4819.7	4646.9	4445.3	4397.2	4272.4	4195.6	4133.2	4195.6
7.5°	5050.1	4902.3	4682.4	4315.6	4020.9	3876.9	3841.4	3805.8	3796.2	3764.5	3796.2
10°	5011.7	4810.1	4402.0	3989.2	3782.8	3715.6	3730.0	3744.4	3773.2	3768.4	3773.2
12.5°	4957.9	4648.8	4110.2	3824.1	3686.8	3684.9	3791.4	3982.5	4115.0	4106.3	4115.0
15°	4867.7	4339.6	3835.6	3653.2	3610.0	3830.8	4219.6	4310.8	4344.4	4349.2	4344.4
17.5°	4738.1	4037.2	3659.9	3539.9	3686.8	4166.8	4284.9	4326.2	4355.0	4356.9	4355.0
20°	4642.1	3883.6	3571.6	3490.0	3878.8	4186.0	4258.0	4310.8	4358.8	4368.4	4358.8
22.5°	4511.5	3776.1	3479.4	3455.4	3986.3	4166.8	4231.2	4310.8	4351.2	4349.2	4351.2
25°	4286.8	3643.6	3365.1	3417.9	3998.8	4066.0	4190.8	4243.6	4248.4	4253.2	4248.4
27.5°	4040.1	3527.4	3231.7	3442.9	3921.0	3969.0	4103.5	4130.3	4148.6	4140.9	4148.6
30°	3859.6	3446.8	3139.5	3446.8	3859.6	3888.4	4022.8	4042.0	4018.0	3998.8	4018.0
32.5°	3656.1	3346.9	3051.2	3419.9	3767.4	3807.7	3915.3	3907.6	3883.6	3868.2	3883.6
35°	3259.5	3177.9	2889.9	3331.5	3610.0	3662.8	3725.2	3720.4	3715.6	3701.2	3715.6
37.5°	2813.1	2978.2	2730.5	3194.2	3458.3	3454.4	3547.6	3567.7	3562.9	3544.7	3562.9
40°	2544.3	2813.1	2630.7	3086.7	3350.7	3312.3	3432.3	3456.4	3451.6	3437.2	3451.6
42.5°	2344.6	2594.2	2515.5	2956.1	3220.2	3174.1	3321.0	3345.0	3332.5	3321.9	3332.5
45°	2102.6	2145.8	2337.8	2745.9	3000.3	2995.5	3153.9	3177.9	3149.1	3134.7	3149.1
47.5°	2039.2	1730.1	2143.9	2502.0	2782.4	2800.6	2970.5	2991.7	2965.7	2953.3	2965.7
50°	2035.4	1526.6	2001.8	2313.8	2640.3	2673.9	2851.5	2861.1	2827.5	2822.7	2827.5
52.5°	1885.6	1411.3	1836.7	2148.7	2517.4	2558.7	2720.9	2719.0	2716.1	2722.8	2716.1
55°	1713.8	1272.1	1550.6	1905.8	2328.2	2381.0	2525.1	2529.9	2563.5	2573.1	2563.5
57.5°	1657.1	1114.7	1285.6	1695.5	2138.1	2179.4	2314.8	2326.3	2349.4	2348.4	2349.4
60°	1545.8	1003.3	1128.1	1565.0	1992.2	2045.0	2165.0	2184.2	2203.4	2198.6	2203.4
62.5°	1430.5	926.5	1051.3	1457.4	1853.9	1910.6	1992.2	2026.8	2034.4	2025.8	2034.4
65°	1190.5	825.7	931.3	1286.5	1641.8	1704.2	1757.0	1781.0	1785.8	1776.2	1785.8
67.5°	860.2	732.6	837.2	1117.6	1397.9	1468.0	1498.7	1513.1	1508.3	1525.6	1508.3
70°	672.1	667.3	768.1	998.5	1248.1	1310.5	1329.7	1344.1	1339.3	1348.9	1339.3
72.5°	579.9	613.5	695.1	875.6	1079.1	1141.6	1153.1	1156.0	1170.4	1160.8	1170.4
75°	451.2	523.3	576.1	691.3	844.9	888.1	892.9	897.7	888.1	902.5	888.1
77.5°	314.9	398.4	445.5	511.7	615.4	642.3	641.3	644.2	636.5	635.6	636.5
80°	249.6	302.4	345.6	388.8	465.6	484.8	480.0	475.2	475.2	470.4	475.2
82.5°	184.3	214.1	253.5	285.1	335.1	338.9	345.6	337.0	337.0	343.7	337.0
85°	76.8	100.8	129.6	144.0	163.2	168.0	158.4	172.8	163.2	163.2	163.2
87.5°	19.2	30.7	46.1	53.8	57.6	53.8	53.8	46.1	46.1	46.1	46.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1
2.5°	4920.5	4958.9	4935.9	4966.6	5024.2	5054.9	5070.3	5108.7	5108.7	5131.7	5139.4
5°	4272.4	4397.2	4445.3	4646.9	4819.7	4939.7	5011.7	5098.1	5136.5	5189.3	5208.5
7.5°	3805.8	3841.4	3876.9	4020.9	4315.6	4682.4	4902.3	5050.1	5127.9	5197.0	5224.9
10°	3744.4	3730.0	3715.6	3782.8	3989.2	4402.0	4810.1	5011.7	5112.5	5189.3	5213.3
12.5°	3982.5	3791.4	3684.9	3686.8	3824.1	4110.2	4648.8	4957.9	5089.5	5162.4	5190.3
15°	4310.8	4219.6	3830.8	3610.0	3653.2	3835.6	4339.6	4867.7	5030.9	5098.1	5141.3
17.5°	4326.2	4284.9	4166.8	3686.8	3539.9	3659.9	4037.2	4738.1	4945.5	5025.2	5063.6
20°	4310.8	4258.0	4186.0	3878.8	3490.0	3571.6	3883.6	4642.1	4872.5	4963.7	5002.1
22.5°	4310.8	4231.2	4166.8	3986.3	3455.4	3479.4	3776.1	4511.5	4795.7	4890.7	4929.1
25°	4243.6	4190.8	4066.0	3998.8	3417.9	3365.1	3643.6	4286.8	4670.9	4752.5	4810.1
27.5°	4130.3	4103.5	3969.0	3921.0	3442.9	3231.7	3527.4	4040.1	4499.0	4615.2	4677.6
30°	4042.0	4022.8	3888.4	3859.6	3446.8	3139.5	3446.8	3859.6	4349.2	4507.7	4589.3
32.5°	3907.6	3915.3	3807.7	3767.4	3419.9	3051.2	3346.9	3656.1	4126.5	4396.3	4493.3
35°	3720.4	3725.2	3662.8	3610.0	3331.5	2889.9	3177.9	3259.5	3854.8	4238.8	4320.4
37.5°	3567.7	3547.6	3454.4	3458.3	3194.2	2730.5	2978.2	2813.1	3609.0	4072.7	4132.3
40°	3456.4	3432.3	3312.3	3350.7	3086.7	2630.7	2813.1	2544.3	3374.7	3946.0	3994.0
42.5°	3345.0	3321.0	3174.1	3220.2	2956.1	2515.5	2594.2	2344.6	3117.4	3811.6	3825.0
45°	3177.9	3153.9	2995.5	3000.3	2745.9	2337.8	2145.8	2102.6	2966.7	3595.6	3595.6
47.5°	2991.7	2970.5	2800.6	2782.4	2502.0	2143.9	1730.1	2039.2	2755.5	3363.2	3361.3
50°	2861.1	2851.5	2673.9	2640.3	2313.8	2001.8	1526.6	2035.4	2601.9	3163.5	3211.5
52.5°	2719.0	2720.9	2558.7	2517.4	2148.7	1836.7	1411.3	1885.6	2413.7	2906.2	3057.9
55°	2529.9	2525.1	2381.0	2328.2	1905.8	1550.6	1272.1	1713.8	2121.8	2549.1	2803.5
57.5°	2326.3	2314.8	2179.4	2138.1	1695.5	1285.6	1114.7	1657.1	1668.7	2222.6	2547.1
60°	2184.2	2165.0	2045.0	1992.2	1565.0	1128.1	1003.3	1545.8	1276.9	1992.2	2347.4
62.5°	2026.8	1992.2	1910.6	1853.9	1457.4	1051.3	926.5	1430.5	996.6	1731.1	2155.4
65°	1781.0	1757.0	1704.2	1641.8	1286.5	931.3	825.7	1190.5	777.7	1185.7	1872.2
67.5°	1513.1	1498.7	1468.0	1397.9	1117.6	837.2	732.6	860.2	591.4	752.7	1602.4
70°	1344.1	1329.7	1310.5	1248.1	998.5	768.1	667.3	672.1	422.4	556.9	1425.7
72.5°	1156.0	1153.1	1141.6	1079.1	875.6	695.1	613.5	579.9	357.2	437.8	1245.2
75°	897.7	892.9	888.1	844.9	691.3	576.1	523.3	451.2	360.0	312.0	974.5
77.5°	644.2	641.3	642.3	615.4	511.7	445.5	398.4	314.9	321.6	237.1	729.7
80°	475.2	480.0	484.8	465.6	388.8	345.6	302.4	249.6	264.0	187.2	556.9
82.5°	337.0	345.6	338.9	335.1	285.1	253.5	214.1	184.3	187.2	148.8	414.8
85°	172.8	158.4	168.0	163.2	144.0	129.6	100.8	76.8	96.0	86.4	206.4
87.5°	46.1	53.8	53.8	57.6	53.8	46.1	30.7	19.2	34.6	42.2	84.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1	5074.1
2.5°	5127.9	5127.9	5162.4	5170.1	5177.8	5166.3	5177.8	5170.1	5162.4	5127.9	5127.9
5°	5203.7	5203.7	5251.7	5266.1	5266.1	5256.5	5266.1	5266.1	5251.7	5203.7	5203.7
7.5°	5210.5	5218.1	5266.1	5276.7	5285.3	5270.9	5285.3	5276.7	5266.1	5218.1	5210.5
10°	5198.9	5218.1	5266.1	5280.5	5285.3	5270.9	5285.3	5280.5	5266.1	5218.1	5198.9
12.5°	5183.6	5198.9	5246.9	5257.5	5266.1	5255.6	5266.1	5257.5	5246.9	5198.9	5183.6
15°	5131.7	5150.9	5203.7	5213.3	5222.9	5208.5	5222.9	5213.3	5203.7	5150.9	5131.7
17.5°	5059.7	5083.7	5131.7	5147.1	5151.9	5133.6	5151.9	5147.1	5131.7	5083.7	5059.7
20°	5002.1	5026.1	5074.1	5093.3	5098.1	5083.7	5098.1	5093.3	5074.1	5026.1	5002.1
22.5°	4929.1	4968.5	5012.7	5020.4	5013.6	4999.2	5013.6	5020.4	5012.7	4968.5	4929.1
25°	4824.5	4858.1	4872.5	4872.5	4872.5	4858.1	4872.5	4872.5	4872.5	4858.1	4824.5
27.5°	4691.0	4708.3	4717.0	4724.6	4734.2	4724.6	4734.2	4724.6	4717.0	4708.3	4691.0
30°	4598.9	4589.3	4613.3	4632.5	4642.1	4632.5	4642.1	4632.5	4613.3	4589.3	4598.9
32.5°	4472.1	4477.9	4513.4	4524.9	4526.9	4517.3	4526.9	4524.9	4513.4	4477.9	4472.1
35°	4286.8	4310.8	4334.8	4344.4	4349.2	4334.8	4349.2	4344.4	4334.8	4310.8	4286.8
37.5°	4091.0	4133.2	4150.5	4139.9	4140.9	4125.5	4140.9	4139.9	4150.5	4133.2	4091.0
40°	3960.4	3998.8	4008.4	3994.0	3998.8	3979.6	3998.8	3994.0	4008.4	3998.8	3960.4
42.5°	3837.5	3868.2	3858.6	3840.4	3837.5	3829.8	3837.5	3840.4	3858.6	3868.2	3837.5
45°	3634.0	3648.4	3605.2	3590.8	3581.2	3571.6	3581.2	3590.8	3605.2	3648.4	3634.0
47.5°	3411.2	3392.0	3350.7	3328.7	3301.8	3283.5	3301.8	3328.7	3350.7	3392.0	3411.2
50°	3269.1	3211.5	3177.9	3125.1	3105.9	3110.7	3105.9	3125.1	3177.9	3211.5	3269.1
52.5°	3096.3	3027.2	2974.4	2929.3	2913.9	2911.0	2913.9	2929.3	2974.4	3027.2	3096.3
55°	2846.7	2741.1	2654.7	2630.7	2625.9	2635.5	2625.9	2630.7	2654.7	2741.1	2846.7
57.5°	2540.4	2436.7	2365.7	2346.5	2330.2	2314.8	2330.2	2346.5	2365.7	2436.7	2540.4
60°	2333.0	2237.0	2169.8	2150.6	2107.4	2088.2	2107.4	2150.6	2169.8	2237.0	2333.0
62.5°	2148.7	2033.5	1981.6	1943.2	1911.6	1880.8	1911.6	1943.2	1981.6	2033.5	2148.7
65°	1881.8	1747.4	1694.6	1661.0	1603.4	1589.0	1603.4	1661.0	1694.6	1747.4	1881.8
67.5°	1589.9	1472.8	1406.5	1361.4	1324.9	1324.0	1324.9	1361.4	1406.5	1472.8	1589.9
70°	1401.7	1296.1	1233.7	1180.9	1152.1	1147.3	1152.1	1180.9	1233.7	1296.1	1401.7
72.5°	1217.4	1115.6	1060.9	1011.9	987.0	982.2	987.0	1011.9	1060.9	1115.6	1217.4
75°	955.3	859.3	816.1	782.5	763.3	753.7	763.3	782.5	816.1	859.3	955.3
77.5°	706.6	628.9	606.8	572.2	555.9	554.9	555.9	572.2	606.8	628.9	706.6
80°	556.9	494.5	460.8	441.6	436.8	432.0	436.8	441.6	460.8	494.5	556.9
82.5°	403.2	367.7	345.6	334.1	333.2	324.5	333.2	334.1	345.6	367.7	403.2
85°	216.0	206.4	201.6	196.8	192.0	192.0	192.0	196.8	201.6	206.4	216.0
87.5°	88.3	92.2	92.2	96.0	99.9	96.0	99.9	96.0	92.2	92.2	88.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-125D-830-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	5074.1	5074.1	5074.1	5074.1
2.5°	5139.4	5131.7	5108.7	5108.7
5°	5208.5	5189.3	5136.5	5098.1
7.5°	5224.9	5197.0	5127.9	5050.1
10°	5213.3	5189.3	5112.5	5011.7
12.5°	5190.3	5162.4	5089.5	4957.9
15°	5141.3	5098.1	5030.9	4867.7
17.5°	5063.6	5025.2	4945.5	4738.1
20°	5002.1	4963.7	4872.5	4642.1
22.5°	4929.1	4890.7	4795.7	4511.5
25°	4810.1	4752.5	4670.9	4286.8
27.5°	4677.6	4615.2	4499.0	4040.1
30°	4589.3	4507.7	4349.2	3859.6
32.5°	4493.3	4396.3	4126.5	3656.1
35°	4320.4	4238.8	3854.8	3259.5
37.5°	4132.3	4072.7	3609.0	2813.1
40°	3994.0	3946.0	3374.7	2544.3
42.5°	3825.0	3811.6	3117.4	2344.6
45°	3595.6	3595.6	2966.7	2102.6
47.5°	3361.3	3363.2	2755.5	2039.2
50°	3211.5	3163.5	2601.9	2035.4
52.5°	3057.9	2906.2	2413.7	1885.6
55°	2803.5	2549.1	2121.8	1713.8
57.5°	2547.1	2222.6	1668.7	1657.1
60°	2347.4	1992.2	1276.9	1545.8
62.5°	2155.4	1731.1	996.6	1430.5
65°	1872.2	1185.7	777.7	1190.5
67.5°	1602.4	752.7	591.4	860.2
70°	1425.7	556.9	422.4	672.1
72.5°	1245.2	437.8	357.2	579.9
75°	974.5	312.0	360.0	451.2
77.5°	729.7	237.1	321.6	314.9
80°	556.9	187.2	264.0	249.6
82.5°	414.8	148.8	187.2	184.3
85°	206.4	86.4	96.0	76.8
87.5°	84.5	42.2	34.6	19.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)