

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-840-1D-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-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

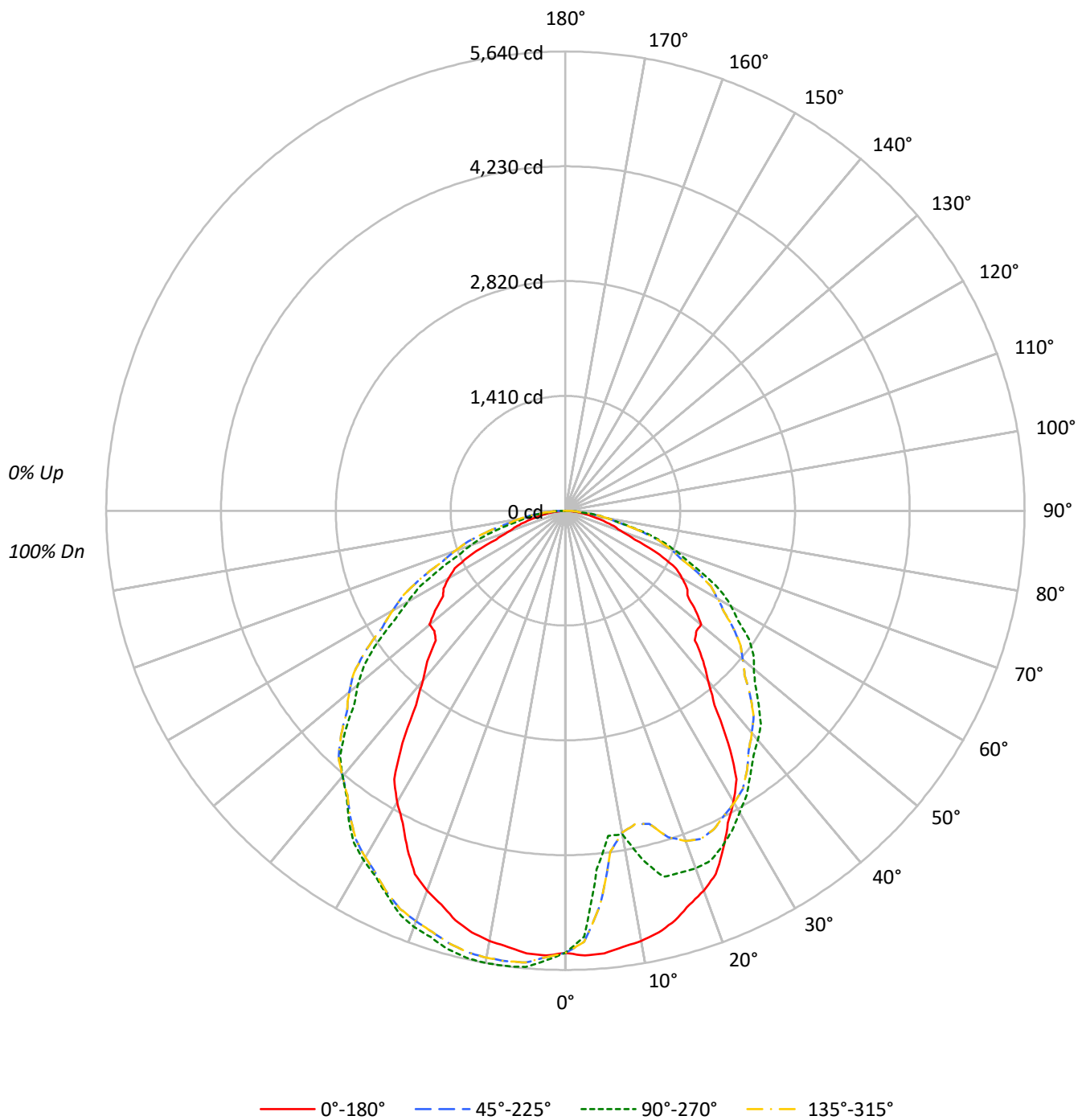
Lumens per Lamp: N/A
Luminaire Lumens: 14070.8 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

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



TEST NUMBER:

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	105	100	97	106	102	98	95	98	95	92		94	92	89		91
2	99	91	85	79	97	90	83	78	86	81	76		83	78	75		80
3	91	81	73	66	88	79	72	66	76	70	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	42	69	57	48	42	55	47	42		53	47	41		52
7	66	52	44	38	64	51	43	37	50	43	37		48	42	37		47
8	61	48	39	33	60	47	39	33	46	38	33		44	38	33		43
9	57	44	36	30	56	43	35	30	42	35	30		41	34	30		40
10	54	40	33	27	52	40	32	27	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	16699	16699	16699	16699
5°	16842	13654	16842	17365
10°	16748	12593	16748	17614
15°	16585	14818	16585	17746
20°	16258	15299	16258	17804
25°	15567	15444	15567	17641
30°	14667	15196	14667	17604
35°	13095	14870	13095	17415
40°	10930	14766	10930	17097
45°	9786	14590	9786	16622
50°	10421	14452	10421	15927
55°	9833	14763	9833	15121
60°	10174	14472	10174	13745
65°	9271	13831	9271	12374
70°	6467	12980	6467	11039
75°	5738	11476	5738	9583
80°	4730	8915	4730	8188
85°	2901	6165	2901	7251

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 16980 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	489.5	3.5
10°-20°	1391.1	9.9
20°-30°	2149.7	15.3
30°-40°	2568.4	18.3
40°-50°	2585.0	18.4
50°-60°	2244.3	16.0
60°-70°	1588.7	11.3
70°-80°	840.3	6.0
80°-90°	213.8	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°	4030.3	28.6
0°-40°	6598.7	46.9
0°-60°	11428.0	81.2
0°-90°	14070.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14070.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	5430	5430	5430	5430	5430	
5°	5456	4423	5456	5625	5456	517
15°	5209	4654	5209	5574	5209	1464
25°	4587	4551	4587	5199	4587	2104
35°	3488	3961	3488	4639	3488	2154
45°	2250	3354	2250	3822	2250	1812
55°	1834	2753	1834	2820	1834	1687
65°	1274	1901	1274	1700	1274	1212
75°	483	966	483	806	483	509
85°	82	175	82	206	82	118
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°	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8
2.5°	5466.8	5425.7	5409.3	5376.4	5314.8	5281.9	5306.5	5265.4	5281.9	5236.7	5281.9
5°	5455.5	5363.1	5286.0	5157.6	4972.6	4756.9	4705.5	4571.9	4489.8	4423.0	4489.8
7.5°	5404.1	5245.9	5010.7	4618.2	4302.8	4148.7	4110.6	4072.6	4062.4	4028.5	4062.4
10°	5363.1	5147.3	4710.6	4268.9	4048.0	3976.1	3991.5	4006.9	4037.7	4032.6	4037.7
12.5°	5305.5	4974.7	4398.3	4092.2	3945.2	3943.2	4057.2	4261.7	4403.5	4394.2	4403.5
15°	5208.9	4643.9	4104.5	3909.3	3863.0	4099.3	4515.4	4613.0	4649.0	4654.1	4649.0
17.5°	5070.2	4320.2	3916.5	3788.0	3945.2	4458.9	4585.3	4629.5	4660.3	4662.4	4660.3
20°	4967.5	4155.9	3821.9	3734.6	4150.7	4479.5	4556.5	4613.0	4664.4	4674.7	4664.4
22.5°	4827.8	4040.8	3723.3	3697.6	4265.8	4458.9	4527.8	4613.0	4656.2	4654.1	4656.2
25°	4587.4	3899.0	3601.1	3657.6	4279.1	4351.1	4484.6	4541.1	4546.3	4551.4	4546.3
27.5°	4323.3	3774.7	3458.2	3684.3	4195.9	4247.3	4391.1	4419.9	4439.4	4431.2	4439.4
30°	4130.2	3688.4	3359.6	3688.4	4130.2	4161.0	4304.8	4325.4	4299.7	4279.1	4299.7
32.5°	3912.4	3581.5	3265.1	3659.6	4031.5	4074.7	4189.8	4181.5	4155.9	4139.4	4155.9
35°	3488.0	3400.7	3092.5	3565.1	3863.0	3919.5	3986.3	3981.2	3976.1	3960.6	3976.1
37.5°	3010.3	3187.0	2921.9	3418.2	3700.7	3696.6	3796.3	3817.8	3812.7	3793.2	3812.7
40°	2722.6	3010.3	2815.1	3303.1	3585.6	3544.5	3673.0	3698.7	3693.5	3678.1	3693.5
42.5°	2508.9	2776.0	2691.8	3163.4	3445.9	3396.6	3553.8	3579.5	3566.1	3554.8	3566.1
45°	2250.0	2296.2	2501.7	2938.4	3210.6	3205.5	3375.0	3400.7	3369.9	3354.5	3369.9
47.5°	2182.2	1851.4	2294.2	2677.4	2977.4	2996.9	3178.8	3201.4	3173.7	3160.3	3173.7
50°	2178.1	1633.6	2142.1	2476.0	2825.4	2861.3	3051.4	3061.7	3025.7	3020.6	3025.7
52.5°	2017.8	1510.3	1965.4	2299.3	2693.9	2738.0	2911.7	2909.6	2906.5	2913.7	2906.5
55°	1833.9	1361.3	1659.3	2039.4	2491.5	2548.0	2702.1	2707.2	2743.2	2753.4	2743.2
57.5°	1773.3	1192.8	1375.7	1814.4	2288.0	2332.2	2477.1	2489.4	2514.1	2513.0	2514.1
60°	1654.1	1073.6	1207.2	1674.7	2131.9	2188.4	2316.8	2337.3	2357.9	2352.8	2357.9
62.5°	1530.8	991.4	1125.0	1559.6	1983.9	2044.5	2131.9	2168.9	2177.1	2167.8	2177.1
65°	1274.0	883.6	996.6	1376.7	1756.9	1823.6	1880.1	1905.8	1911.0	1900.7	1911.0
67.5°	920.6	783.9	895.9	1195.9	1495.9	1570.9	1603.8	1619.2	1614.1	1632.5	1614.1
70°	719.2	714.0	821.9	1068.5	1335.6	1402.4	1423.0	1438.4	1433.2	1443.5	1433.2
72.5°	620.6	656.5	743.8	937.0	1154.8	1221.6	1233.9	1237.0	1252.4	1242.1	1252.4
75°	482.9	559.9	616.4	739.7	904.1	950.3	955.5	960.6	950.3	965.8	950.3
77.5°	337.0	426.4	476.7	547.6	658.6	687.3	686.3	689.4	681.2	680.1	681.2
80°	267.1	323.6	369.9	416.1	498.3	518.8	513.7	508.6	508.6	503.4	508.6
82.5°	197.3	229.1	271.2	305.1	358.6	362.7	369.9	360.6	360.6	367.8	360.6
85°	82.2	107.9	138.7	154.1	174.7	179.8	169.5	184.9	174.7	174.7	174.7
87.5°	20.5	32.9	49.3	57.5	61.6	57.5	57.5	49.3	49.3	49.3	49.3
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°	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8
2.5°	5265.4	5306.5	5281.9	5314.8	5376.4	5409.3	5425.7	5466.8	5466.8	5491.5	5499.7
5°	4571.9	4705.5	4756.9	4972.6	5157.6	5286.0	5363.1	5455.5	5496.6	5553.1	5573.7
7.5°	4072.6	4110.6	4148.7	4302.8	4618.2	5010.7	5245.9	5404.1	5487.4	5561.3	5591.1
10°	4006.9	3991.5	3976.1	4048.0	4268.9	4710.6	5147.3	5363.1	5470.9	5553.1	5578.8
12.5°	4261.7	4057.2	3943.2	3945.2	4092.2	4398.3	4974.7	5305.5	5446.3	5524.4	5554.1
15°	4613.0	4515.4	4099.3	3863.0	3909.3	4104.5	4643.9	5208.9	5383.6	5455.5	5501.8
17.5°	4629.5	4585.3	4458.9	3945.2	3788.0	3916.5	4320.2	5070.2	5292.2	5377.4	5418.5
20°	4613.0	4556.5	4479.5	4150.7	3734.6	3821.9	4155.9	4967.5	5214.1	5311.7	5352.8
22.5°	4613.0	4527.8	4458.9	4265.8	3697.6	3723.3	4040.8	4827.8	5131.9	5233.6	5274.7
25°	4541.1	4484.6	4351.1	4279.1	3657.6	3601.1	3899.0	4587.4	4998.3	5085.7	5147.3
27.5°	4419.9	4391.1	4247.3	4195.9	3684.3	3458.2	3774.7	4323.3	4814.4	4938.7	5005.5
30°	4325.4	4304.8	4161.0	4130.2	3688.4	3359.6	3688.4	4130.2	4654.1	4823.7	4911.0
32.5°	4181.5	4189.8	4074.7	4031.5	3659.6	3265.1	3581.5	3912.4	4415.8	4704.5	4808.3
35°	3981.2	3986.3	3919.5	3863.0	3565.1	3092.5	3400.7	3488.0	4125.0	4536.0	4623.3
37.5°	3817.8	3796.3	3696.6	3700.7	3418.2	2921.9	3187.0	3010.3	3862.0	4358.2	4421.9
40°	3698.7	3673.0	3544.5	3585.6	3303.1	2815.1	3010.3	2722.6	3611.3	4222.6	4274.0
42.5°	3579.5	3553.8	3396.6	3445.9	3163.4	2691.8	2776.0	2508.9	3336.0	4078.8	4093.2
45°	3400.7	3375.0	3205.5	3210.6	2938.4	2501.7	2296.2	2250.0	3174.7	3847.6	3847.6
47.5°	3201.4	3178.8	2996.9	2977.4	2677.4	2294.2	1851.4	2182.2	2948.7	3599.0	3596.9
50°	3061.7	3051.4	2861.3	2825.4	2476.0	2142.1	1633.6	2178.1	2784.3	3385.3	3436.7
52.5°	2909.6	2911.7	2738.0	2693.9	2299.3	1965.4	1510.3	2017.8	2582.9	3110.0	3272.3
55°	2707.2	2702.1	2548.0	2491.5	2039.4	1659.3	1361.3	1833.9	2270.6	2727.8	3000.0
57.5°	2489.4	2477.1	2332.2	2288.0	1814.4	1375.7	1192.8	1773.3	1785.6	2378.4	2725.7
60°	2337.3	2316.8	2188.4	2131.9	1674.7	1207.2	1073.6	1654.1	1366.4	2131.9	2512.0
62.5°	2168.9	2131.9	2044.5	1983.9	1559.6	1125.0	991.4	1530.8	1066.4	1852.4	2306.5
65°	1905.8	1880.1	1823.6	1756.9	1376.7	996.6	883.6	1274.0	832.2	1268.8	2003.4
67.5°	1619.2	1603.8	1570.9	1495.9	1195.9	895.9	783.9	920.6	632.9	805.5	1714.7
70°	1438.4	1423.0	1402.4	1335.6	1068.5	821.9	714.0	719.2	452.1	595.9	1525.7
72.5°	1237.0	1233.9	1221.6	1154.8	937.0	743.8	656.5	620.6	382.2	468.5	1332.5
75°	960.6	955.5	950.3	904.1	739.7	616.4	559.9	482.9	385.3	333.9	1042.8
77.5°	689.4	686.3	687.3	658.6	547.6	476.7	426.4	337.0	344.2	253.8	780.8
80°	508.6	513.7	518.8	498.3	416.1	369.9	323.6	267.1	282.5	200.3	595.9
82.5°	360.6	369.9	362.7	358.6	305.1	271.2	229.1	197.3	200.3	159.2	443.8
85°	184.9	169.5	179.8	174.7	154.1	138.7	107.9	82.2	102.7	92.5	220.9
87.5°	49.3	57.5	57.5	61.6	57.5	49.3	32.9	20.5	37.0	45.2	90.4
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°	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8	5429.8
2.5°	5487.4	5487.4	5524.4	5532.6	5540.8	5528.5	5540.8	5532.6	5524.4	5487.4	5487.4
5°	5568.5	5568.5	5619.9	5635.3	5635.3	5625.0	5635.3	5635.3	5619.9	5568.5	5568.5
7.5°	5575.7	5583.9	5635.3	5646.6	5655.9	5640.4	5655.9	5646.6	5635.3	5583.9	5575.7
10°	5563.4	5583.9	5635.3	5650.7	5655.9	5640.4	5655.9	5650.7	5635.3	5583.9	5563.4
12.5°	5547.0	5563.4	5614.8	5626.1	5635.3	5624.0	5635.3	5626.1	5614.8	5563.4	5547.0
15°	5491.5	5512.0	5568.5	5578.8	5589.1	5573.7	5589.1	5578.8	5568.5	5512.0	5491.5
17.5°	5414.4	5440.1	5491.5	5507.9	5513.1	5493.5	5513.1	5507.9	5491.5	5440.1	5414.4
20°	5352.8	5378.5	5429.8	5450.4	5455.5	5440.1	5455.5	5450.4	5429.8	5378.5	5352.8
22.5°	5274.7	5316.8	5364.1	5372.3	5365.1	5349.7	5365.1	5372.3	5364.1	5316.8	5274.7
25°	5162.7	5198.7	5214.1	5214.1	5214.1	5198.7	5214.1	5214.1	5214.1	5198.7	5162.7
27.5°	5019.9	5038.4	5047.6	5055.9	5066.1	5055.9	5066.1	5055.9	5047.6	5038.4	5019.9
30°	4921.3	4911.0	4936.7	4957.2	4967.5	4957.2	4967.5	4957.2	4936.7	4911.0	4921.3
32.5°	4785.6	4791.8	4829.8	4842.2	4844.2	4833.9	4844.2	4842.2	4829.8	4791.8	4785.6
35°	4587.4	4613.0	4638.7	4649.0	4654.1	4638.7	4654.1	4649.0	4638.7	4613.0	4587.4
37.5°	4377.8	4423.0	4441.5	4430.2	4431.2	4414.8	4431.2	4430.2	4441.5	4423.0	4377.8
40°	4238.0	4279.1	4289.4	4274.0	4279.1	4258.6	4279.1	4274.0	4289.4	4279.1	4238.0
42.5°	4106.5	4139.4	4129.1	4109.6	4106.5	4098.3	4106.5	4109.6	4129.1	4139.4	4106.5
45°	3888.7	3904.1	3857.9	3842.5	3832.2	3821.9	3832.2	3842.5	3857.9	3904.1	3888.7
47.5°	3650.4	3629.8	3585.6	3562.0	3533.2	3513.7	3533.2	3562.0	3585.6	3629.8	3650.4
50°	3498.3	3436.7	3400.7	3344.2	3323.7	3328.8	3323.7	3344.2	3400.7	3436.7	3498.3
52.5°	3313.4	3239.4	3182.9	3134.6	3118.2	3115.1	3118.2	3134.6	3182.9	3239.4	3313.4
55°	3046.3	2933.2	2840.8	2815.1	2810.0	2820.2	2810.0	2815.1	2840.8	2933.2	3046.3
57.5°	2718.5	2607.6	2531.5	2511.0	2493.5	2477.1	2493.5	2511.0	2531.5	2607.6	2718.5
60°	2496.6	2393.9	2321.9	2301.4	2255.2	2234.6	2255.2	2301.4	2321.9	2393.9	2496.6
62.5°	2299.3	2176.0	2120.6	2079.5	2045.6	2012.7	2045.6	2079.5	2120.6	2176.0	2299.3
65°	2013.7	1869.9	1813.4	1777.4	1715.8	1700.4	1715.8	1777.4	1813.4	1869.9	2013.7
67.5°	1701.4	1576.0	1505.1	1456.9	1417.8	1416.8	1417.8	1456.9	1505.1	1576.0	1701.4
70°	1500.0	1387.0	1320.2	1263.7	1232.9	1227.7	1232.9	1263.7	1320.2	1387.0	1500.0
72.5°	1302.7	1193.8	1135.3	1082.9	1056.2	1051.0	1056.2	1082.9	1135.3	1193.8	1302.7
75°	1022.3	919.5	873.3	837.3	816.8	806.5	816.8	837.3	873.3	919.5	1022.3
77.5°	756.2	672.9	649.3	612.3	594.9	593.8	594.9	612.3	649.3	672.9	756.2
80°	595.9	529.1	493.2	472.6	467.5	462.3	467.5	472.6	493.2	529.1	595.9
82.5°	431.5	393.5	369.9	357.5	356.5	347.3	356.5	357.5	369.9	393.5	431.5
85°	231.2	220.9	215.8	210.6	205.5	205.5	205.5	210.6	215.8	220.9	231.2
87.5°	94.5	98.6	98.6	102.7	106.9	102.7	106.9	102.7	98.6	98.6	94.5
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-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	5429.8	5429.8	5429.8	5429.8
2.5°	5499.7	5491.5	5466.8	5466.8
5°	5573.7	5553.1	5496.6	5455.5
7.5°	5591.1	5561.3	5487.4	5404.1
10°	5578.8	5553.1	5470.9	5363.1
12.5°	5554.1	5524.4	5446.3	5305.5
15°	5501.8	5455.5	5383.6	5208.9
17.5°	5418.5	5377.4	5292.2	5070.2
20°	5352.8	5311.7	5214.1	4967.5
22.5°	5274.7	5233.6	5131.9	4827.8
25°	5147.3	5085.7	4998.3	4587.4
27.5°	5005.5	4938.7	4814.4	4323.3
30°	4911.0	4823.7	4654.1	4130.2
32.5°	4808.3	4704.5	4415.8	3912.4
35°	4623.3	4536.0	4125.0	3488.0
37.5°	4421.9	4358.2	3862.0	3010.3
40°	4274.0	4222.6	3611.3	2722.6
42.5°	4093.2	4078.8	3336.0	2508.9
45°	3847.6	3847.6	3174.7	2250.0
47.5°	3596.9	3599.0	2948.7	2182.2
50°	3436.7	3385.3	2784.3	2178.1
52.5°	3272.3	3110.0	2582.9	2017.8
55°	3000.0	2727.8	2270.6	1833.9
57.5°	2725.7	2378.4	1785.6	1773.3
60°	2512.0	2131.9	1366.4	1654.1
62.5°	2306.5	1852.4	1066.4	1530.8
65°	2003.4	1268.8	832.2	1274.0
67.5°	1714.7	805.5	632.9	920.6
70°	1525.7	595.9	452.1	719.2
72.5°	1332.5	468.5	382.2	620.6
75°	1042.8	333.9	385.3	482.9
77.5°	780.8	253.8	344.2	337.0
80°	595.9	200.3	282.5	267.1
82.5°	443.8	159.2	200.3	197.3
85°	220.9	92.5	102.7	82.2
87.5°	90.4	45.2	37.0	20.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)