

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-835-1D-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-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

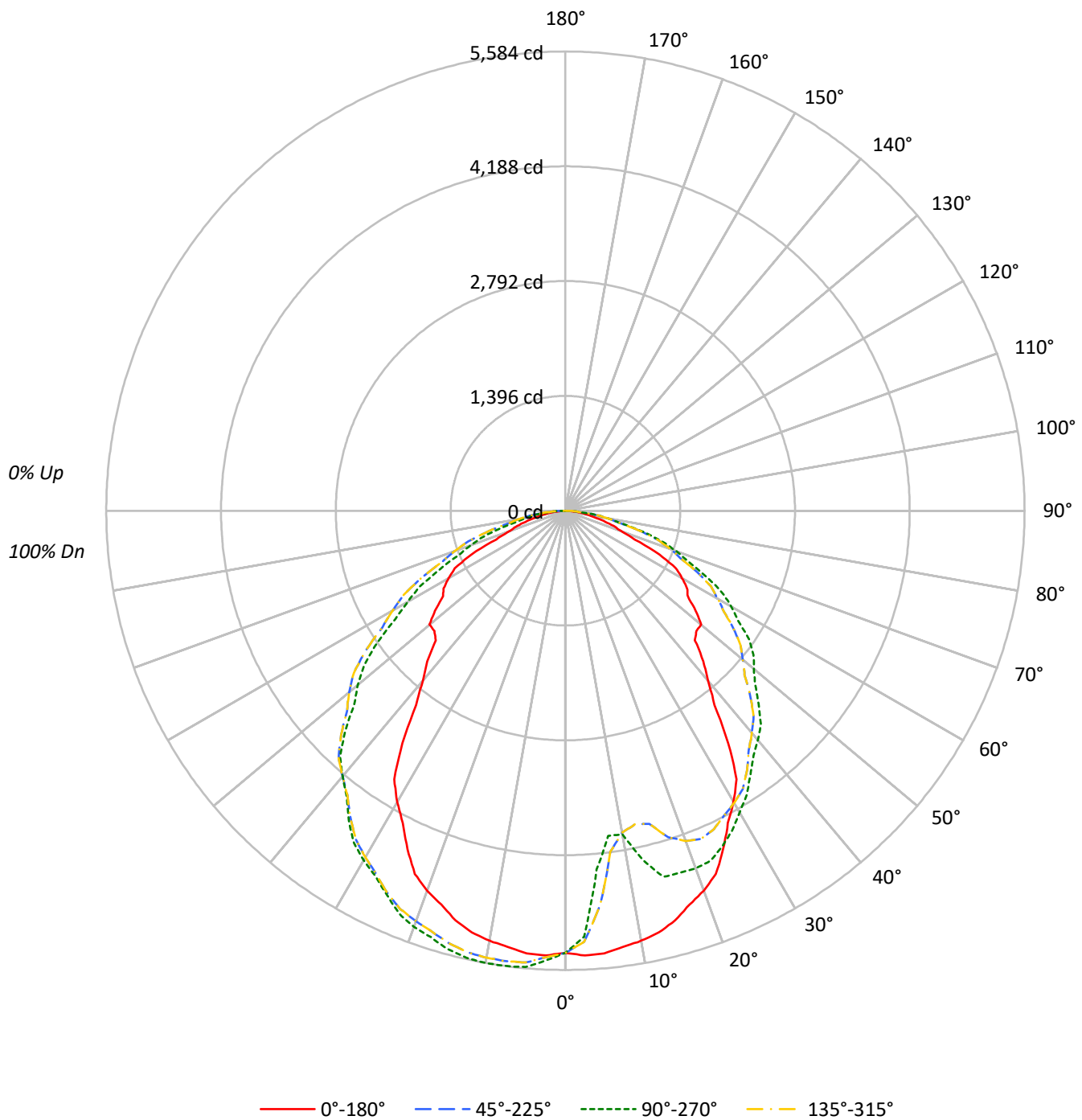
Lumens per Lamp: N/A
Luminaire Lumens: 13930.6 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

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



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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°	16532	16532	16532	16532
5°	16674	13518	16674	17192
10°	16581	12468	16581	17439
15°	16419	14671	16419	17569
20°	16095	15147	16095	17627
25°	15411	15291	15411	17465
30°	14521	15045	14521	17428
35°	12965	14722	12965	17242
40°	10821	14619	10821	16927
45°	9688	14444	9688	16457
50°	10317	14308	10317	15768
55°	9735	14616	9735	14971
60°	10073	14327	10073	13607
65°	9179	13694	9179	12250
70°	6402	12850	6402	10930
75°	5681	11361	5681	9488
80°	4684	8827	4684	8106
85°	2872	6101	2872	7177

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 16811 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	484.6	3.5
10°-20°	1377.2	9.9
20°-30°	2128.3	15.3
30°-40°	2542.8	18.3
40°-50°	2559.2	18.4
50°-60°	2221.9	16.0
60°-70°	1572.9	11.3
70°-80°	832.0	6.0
80°-90°	211.6	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°	3990.1	28.6
0°-40°	6532.9	46.9
0°-60°	11314.1	81.2
0°-90°	13930.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13930.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	5376	5376	5376	5376	5376	
5°	5401	4379	5401	5569	5401	512
15°	5157	4608	5157	5518	5157	1450
25°	4542	4506	4542	5147	4542	2083
35°	3453	3921	3453	4592	3453	2132
45°	2228	3321	2228	3784	2228	1794
55°	1816	2726	1816	2792	1816	1670
65°	1261	1882	1261	1683	1261	1200
75°	478	956	478	798	478	504
85°	81	173	81	203	81	117
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°	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7
2.5°	5412.4	5371.7	5355.4	5322.8	5261.8	5229.3	5253.7	5213.0	5229.3	5184.5	5229.3
5°	5401.2	5309.6	5233.3	5106.2	4923.1	4709.5	4658.6	4526.4	4445.0	4378.9	4445.0
7.5°	5350.3	5193.7	4960.7	4572.2	4259.9	4107.3	4069.7	4032.1	4021.9	3988.3	4021.9
10°	5309.6	5096.0	4663.7	4226.3	4007.6	3936.4	3951.7	3967.0	3997.5	3992.4	3997.5
12.5°	5252.7	4925.1	4354.5	4051.4	3905.9	3903.9	4016.8	4219.2	4359.6	4350.4	4359.6
15°	5157.0	4597.6	4063.6	3870.3	3824.6	4058.5	4470.5	4567.1	4602.7	4607.8	4602.7
17.5°	5019.7	4277.2	3877.4	3750.3	3905.9	4414.5	4539.6	4583.4	4613.9	4615.9	4613.9
20°	4918.0	4114.4	3783.9	3697.4	4109.4	4434.9	4511.1	4567.1	4617.9	4628.1	4617.9
22.5°	4779.7	4000.5	3686.2	3660.8	4223.3	4414.5	4482.7	4567.1	4609.8	4607.8	4609.8
25°	4541.7	3860.2	3565.2	3621.1	4236.5	4307.7	4439.9	4495.9	4501.0	4506.1	4501.0
27.5°	4280.2	3737.1	3423.8	3647.6	4154.1	4205.0	4347.4	4375.9	4395.2	4387.0	4395.2
30°	4089.0	3651.6	3326.1	3651.6	4089.0	4119.5	4261.9	4282.3	4256.9	4236.5	4256.9
32.5°	3873.4	3545.9	3232.6	3623.2	3991.4	4034.1	4148.0	4139.9	4114.4	4098.2	4114.4
35°	3453.3	3366.8	3061.7	3529.6	3824.6	3880.5	3946.6	3941.5	3936.4	3921.2	3936.4
37.5°	2980.3	3155.3	2892.8	3384.1	3663.8	3659.8	3758.4	3779.8	3774.7	3755.4	3774.7
40°	2695.5	2980.3	2787.0	3270.2	3549.9	3509.2	3636.4	3661.8	3656.7	3641.5	3656.7
42.5°	2483.9	2748.4	2665.0	3131.9	3411.6	3362.8	3518.4	3543.8	3530.6	3519.4	3530.6
45°	2227.6	2273.4	2476.8	2909.1	3178.7	3173.6	3341.4	3366.8	3336.3	3321.1	3336.3
47.5°	2160.5	1832.9	2271.3	2650.7	2947.8	2967.1	3147.1	3169.5	3142.0	3128.8	3142.0
50°	2156.4	1617.3	2120.8	2451.4	2797.2	2832.8	3021.0	3031.2	2995.6	2990.5	2995.6
52.5°	1997.7	1495.2	1945.8	2276.4	2667.0	2710.8	2882.7	2880.6	2877.6	2884.7	2877.6
55°	1815.6	1347.7	1642.7	2019.1	2466.6	2522.6	2675.2	2680.2	2715.8	2726.0	2715.8
57.5°	1755.6	1180.9	1362.0	1796.3	2265.2	2309.0	2452.4	2464.6	2489.0	2488.0	2489.0
60°	1637.6	1062.9	1195.2	1658.0	2110.6	2166.6	2293.7	2314.1	2334.4	2329.3	2334.4
62.5°	1515.6	981.6	1113.8	1544.1	1964.2	2024.2	2110.6	2147.2	2155.4	2146.2	2155.4
65°	1261.3	874.8	986.7	1363.0	1739.4	1805.5	1861.4	1886.8	1891.9	1881.8	1891.9
67.5°	911.4	776.1	887.0	1184.0	1481.0	1555.3	1587.8	1603.1	1598.0	1616.3	1598.0
70°	712.0	706.9	813.7	1057.9	1322.3	1388.4	1408.8	1424.0	1419.0	1429.1	1419.0
72.5°	614.4	650.0	736.4	927.7	1143.3	1209.4	1221.6	1224.7	1239.9	1229.8	1239.9
75°	478.1	554.4	610.3	732.4	895.1	940.9	946.0	951.1	940.9	956.1	940.9
77.5°	333.6	422.1	472.0	542.2	652.0	680.5	679.5	682.5	674.4	673.4	674.4
80°	264.5	320.4	366.2	412.0	493.3	513.7	508.6	503.5	503.5	498.4	503.5
82.5°	195.3	226.8	268.5	302.1	355.0	359.1	366.2	357.0	357.0	364.1	357.0
85°	81.4	106.8	137.3	152.6	172.9	178.0	167.8	183.1	172.9	172.9	172.9
87.5°	20.3	32.5	48.8	57.0	61.0	57.0	57.0	48.8	48.8	48.8	48.8
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°	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7
2.5°	5213.0	5253.7	5229.3	5261.8	5322.8	5355.4	5371.7	5412.4	5412.4	5436.8	5444.9
5°	4526.4	4658.6	4709.5	4923.1	5106.2	5233.3	5309.6	5401.2	5441.9	5497.8	5518.1
7.5°	4032.1	4069.7	4107.3	4259.9	4572.2	4960.7	5193.7	5350.3	5432.7	5505.9	5535.4
10°	3967.0	3951.7	3936.4	4007.6	4226.3	4663.7	5096.0	5309.6	5416.4	5497.8	5523.2
12.5°	4219.2	4016.8	3903.9	3905.9	4051.4	4354.5	4925.1	5252.7	5392.0	5469.3	5498.8
15°	4567.1	4470.5	4058.5	3824.6	3870.3	4063.6	4597.6	5157.0	5330.0	5401.2	5446.9
17.5°	4583.4	4539.6	4414.5	3905.9	3750.3	3877.4	4277.2	5019.7	5239.4	5323.9	5364.5
20°	4567.1	4511.1	4434.9	4109.4	3697.4	3783.9	4114.4	4918.0	5162.1	5258.8	5299.4
22.5°	4567.1	4482.7	4414.5	4223.3	3660.8	3686.2	4000.5	4779.7	5080.8	5181.5	5222.1
25°	4495.9	4439.9	4307.7	4236.5	3621.1	3565.2	3860.2	4541.7	4948.5	5035.0	5096.0
27.5°	4375.9	4347.4	4205.0	4154.1	3647.6	3423.8	3737.1	4280.2	4766.5	4889.5	4955.6
30°	4282.3	4261.9	4119.5	4089.0	3651.6	3326.1	3651.6	4089.0	4607.8	4775.6	4862.1
32.5°	4139.9	4148.0	4034.1	3991.4	3623.2	3232.6	3545.9	3873.4	4371.8	4657.6	4760.4
35°	3941.5	3946.6	3880.5	3824.6	3529.6	3061.7	3366.8	3453.3	4083.9	4490.8	4577.3
37.5°	3779.8	3758.4	3659.8	3663.8	3384.1	2892.8	3155.3	2980.3	3823.5	4314.8	4377.9
40°	3661.8	3636.4	3509.2	3549.9	3270.2	2787.0	2980.3	2695.5	3575.3	4180.6	4231.4
42.5°	3543.8	3518.4	3362.8	3411.6	3131.9	2665.0	2748.4	2483.9	3302.7	4038.2	4052.4
45°	3366.8	3341.4	3173.6	3178.7	2909.1	2476.8	2273.4	2227.6	3143.1	3809.3	3809.3
47.5°	3169.5	3147.1	2967.1	2947.8	2650.7	2271.3	1832.9	2160.5	2919.3	3563.1	3561.1
50°	3031.2	3021.0	2832.8	2797.2	2451.4	2120.8	1617.3	2156.4	2756.5	3351.6	3402.4
52.5°	2880.6	2882.7	2710.8	2667.0	2276.4	1945.8	1495.2	1997.7	2557.2	3079.0	3239.7
55°	2680.2	2675.2	2522.6	2466.6	2019.1	1642.7	1347.7	1815.6	2247.9	2700.6	2970.1
57.5°	2464.6	2452.4	2309.0	2265.2	1796.3	1362.0	1180.9	1755.6	1767.8	2354.7	2698.5
60°	2314.1	2293.7	2166.6	2110.6	1658.0	1195.2	1062.9	1637.6	1352.8	2110.6	2487.0
62.5°	2147.2	2110.6	2024.2	1964.2	1544.1	1113.8	981.6	1515.6	1055.8	1834.0	2283.5
65°	1886.8	1861.4	1805.5	1739.4	1363.0	986.7	874.8	1261.3	823.9	1256.2	1983.5
67.5°	1603.1	1587.8	1555.3	1481.0	1184.0	887.0	776.1	911.4	626.6	797.5	1697.7
70°	1424.0	1408.8	1388.4	1322.3	1057.9	813.7	706.9	712.0	447.6	590.0	1510.5
72.5°	1224.7	1221.6	1209.4	1143.3	927.7	736.4	650.0	614.4	378.4	463.8	1319.3
75°	951.1	946.0	940.9	895.1	732.4	610.3	554.4	478.1	381.4	330.6	1032.4
77.5°	682.5	679.5	680.5	652.0	542.2	472.0	422.1	333.6	340.8	251.2	773.0
80°	503.5	508.6	513.7	493.3	412.0	366.2	320.4	264.5	279.7	198.3	590.0
82.5°	357.0	366.2	359.1	355.0	302.1	268.5	226.8	195.3	198.3	157.7	439.4
85°	183.1	167.8	178.0	172.9	152.6	137.3	106.8	81.4	101.7	91.5	218.7
87.5°	48.8	57.0	57.0	61.0	57.0	48.8	32.5	20.3	36.6	44.8	89.5
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°	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7	5375.7
2.5°	5432.7	5432.7	5469.3	5477.5	5485.6	5473.4	5485.6	5477.5	5469.3	5432.7	5432.7
5°	5513.1	5513.1	5563.9	5579.2	5579.2	5569.0	5579.2	5579.2	5563.9	5513.1	5513.1
7.5°	5520.2	5528.3	5579.2	5590.4	5599.5	5584.3	5599.5	5590.4	5579.2	5528.3	5520.2
10°	5508.0	5528.3	5579.2	5594.4	5599.5	5584.3	5599.5	5594.4	5579.2	5528.3	5508.0
12.5°	5491.7	5508.0	5558.8	5570.0	5579.2	5568.0	5579.2	5570.0	5558.8	5508.0	5491.7
15°	5436.8	5457.1	5513.1	5523.2	5533.4	5518.1	5533.4	5523.2	5513.1	5457.1	5436.8
17.5°	5360.5	5385.9	5436.8	5453.0	5458.1	5438.8	5458.1	5453.0	5436.8	5385.9	5360.5
20°	5299.4	5324.9	5375.7	5396.1	5401.2	5385.9	5401.2	5396.1	5375.7	5324.9	5299.4
22.5°	5222.1	5263.8	5310.6	5318.8	5311.7	5296.4	5311.7	5318.8	5310.6	5263.8	5222.1
25°	5111.3	5146.9	5162.1	5162.1	5162.1	5146.9	5162.1	5162.1	5162.1	5146.9	5111.3
27.5°	4969.9	4988.2	4997.4	5005.5	5015.7	5005.5	5015.7	5005.5	4997.4	4988.2	4969.9
30°	4872.2	4862.1	4887.5	4907.8	4918.0	4907.8	4918.0	4907.8	4887.5	4862.1	4872.2
32.5°	4738.0	4744.1	4781.7	4793.9	4796.0	4785.8	4796.0	4793.9	4781.7	4744.1	4738.0
35°	4541.7	4567.1	4592.5	4602.7	4607.8	4592.5	4607.8	4602.7	4592.5	4567.1	4541.7
37.5°	4334.2	4378.9	4397.2	4386.0	4387.0	4370.8	4387.0	4386.0	4397.2	4378.9	4334.2
40°	4195.8	4236.5	4246.7	4231.4	4236.5	4216.2	4236.5	4231.4	4246.7	4236.5	4195.8
42.5°	4065.6	4098.2	4088.0	4068.7	4065.6	4057.5	4065.6	4068.7	4088.0	4098.2	4065.6
45°	3850.0	3865.2	3819.5	3804.2	3794.0	3783.9	3794.0	3804.2	3819.5	3865.2	3850.0
47.5°	3614.0	3593.7	3549.9	3526.5	3498.0	3478.7	3498.0	3526.5	3549.9	3593.7	3614.0
50°	3463.5	3402.4	3366.8	3310.9	3290.5	3295.6	3290.5	3310.9	3366.8	3402.4	3463.5
52.5°	3280.4	3207.1	3151.2	3103.4	3087.1	3084.1	3087.1	3103.4	3151.2	3207.1	3280.4
55°	3015.9	2904.0	2812.5	2787.0	2782.0	2792.1	2782.0	2787.0	2812.5	2904.0	3015.9
57.5°	2691.4	2581.6	2506.3	2486.0	2468.7	2452.4	2468.7	2486.0	2506.3	2581.6	2691.4
60°	2471.7	2370.0	2298.8	2278.5	2232.7	2212.3	2232.7	2278.5	2298.8	2370.0	2471.7
62.5°	2276.4	2154.4	2099.4	2058.7	2025.2	1992.6	2025.2	2058.7	2099.4	2154.4	2276.4
65°	1993.7	1851.2	1795.3	1759.7	1698.7	1683.4	1698.7	1759.7	1795.3	1851.2	1993.7
67.5°	1684.4	1560.3	1490.2	1442.3	1403.7	1402.7	1403.7	1442.3	1490.2	1560.3	1684.4
70°	1485.1	1373.2	1307.1	1251.1	1220.6	1215.5	1220.6	1251.1	1307.1	1373.2	1485.1
72.5°	1289.8	1182.0	1124.0	1072.1	1045.6	1040.6	1045.6	1072.1	1124.0	1182.0	1289.8
75°	1012.1	910.4	864.6	829.0	808.6	798.5	808.6	829.0	864.6	910.4	1012.1
77.5°	748.6	666.2	642.9	606.2	588.9	587.9	588.9	606.2	642.9	666.2	748.6
80°	590.0	523.8	488.2	467.9	462.8	457.7	462.8	467.9	488.2	523.8	590.0
82.5°	427.2	389.6	366.2	354.0	353.0	343.8	353.0	354.0	366.2	389.6	427.2
85°	228.9	218.7	213.6	208.5	203.4	203.4	203.4	208.5	213.6	218.7	228.9
87.5°	93.6	97.6	97.6	101.7	105.8	101.7	105.8	101.7	97.6	97.6	93.6
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-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	5375.7	5375.7	5375.7	5375.7
2.5°	5444.9	5436.8	5412.4	5412.4
5°	5518.1	5497.8	5441.9	5401.2
7.5°	5535.4	5505.9	5432.7	5350.3
10°	5523.2	5497.8	5416.4	5309.6
12.5°	5498.8	5469.3	5392.0	5252.7
15°	5446.9	5401.2	5330.0	5157.0
17.5°	5364.5	5323.9	5239.4	5019.7
20°	5299.4	5258.8	5162.1	4918.0
22.5°	5222.1	5181.5	5080.8	4779.7
25°	5096.0	5035.0	4948.5	4541.7
27.5°	4955.6	4889.5	4766.5	4280.2
30°	4862.1	4775.6	4607.8	4089.0
32.5°	4760.4	4657.6	4371.8	3873.4
35°	4577.3	4490.8	4083.9	3453.3
37.5°	4377.9	4314.8	3823.5	2980.3
40°	4231.4	4180.6	3575.3	2695.5
42.5°	4052.4	4038.2	3302.7	2483.9
45°	3809.3	3809.3	3143.1	2227.6
47.5°	3561.1	3563.1	2919.3	2160.5
50°	3402.4	3351.6	2756.5	2156.4
52.5°	3239.7	3079.0	2557.2	1997.7
55°	2970.1	2700.6	2247.9	1815.6
57.5°	2698.5	2354.7	1767.8	1755.6
60°	2487.0	2110.6	1352.8	1637.6
62.5°	2283.5	1834.0	1055.8	1515.6
65°	1983.5	1256.2	823.9	1261.3
67.5°	1697.7	797.5	626.6	911.4
70°	1510.5	590.0	447.6	712.0
72.5°	1319.3	463.8	378.4	614.4
75°	1032.4	330.6	381.4	478.1
77.5°	773.0	251.2	340.8	333.6
80°	590.0	198.3	279.7	264.5
82.5°	439.4	157.7	198.3	195.3
85°	218.7	91.5	101.7	81.4
87.5°	89.5	44.8	36.6	20.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)