

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-100D-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-100D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

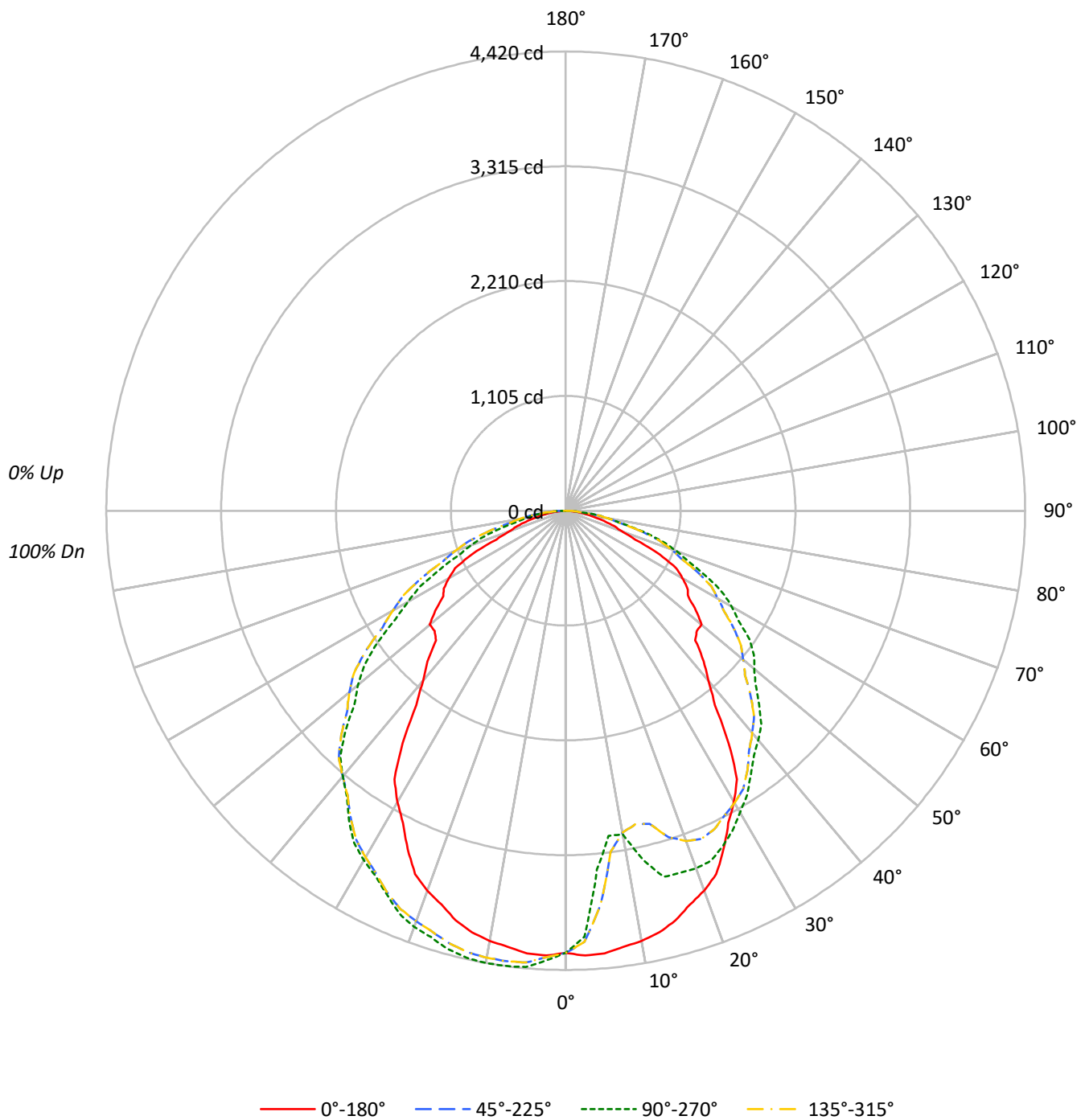
Lumens per Lamp: N/A
Luminaire Lumens: 11026.9 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 108.2
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	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°	13086	13086	13086	13086
5°	13198	10701	13198	13609
10°	13125	9869	13125	13804
15°	12997	11613	12997	13907
20°	12741	11989	12741	13952
25°	12199	12103	12199	13824
30°	11494	11908	11494	13796
35°	10263	11653	10263	13648
40°	8566	11572	8566	13398
45°	7669	11433	7669	13027
50°	8167	11325	8167	12481
55°	7706	11570	7706	11850
60°	7973	11341	7973	10771
65°	7265	10839	7265	9697
70°	5068	10172	5068	8651
75°	4496	8993	4496	7510
80°	3707	6987	3707	6417
85°	2272	4831	2272	5681

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 13307 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.6	3.5
10°-20°	1090.1	9.9
20°-30°	1684.7	15.3
30°-40°	2012.8	18.3
40°-50°	2025.8	18.4
50°-60°	1758.8	16.0
60°-70°	1245.0	11.3
70°-80°	658.5	6.0
80°-90°	167.5	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°	3158.4	28.6
0°-40°	5171.2	46.9
0°-60°	8955.8	81.2
0°-90°	11026.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11026.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4255	4255	4255	4255	4255	
5°	4275	3466	4275	4408	4275	405
15°	4082	3647	4082	4368	4082	1148
25°	3595	3567	3595	4074	3595	1649
35°	2734	3104	2734	3635	2734	1688
45°	1763	2629	1763	2995	1763	1420
55°	1437	2158	1437	2210	1437	1322
65°	998	1490	998	1332	998	950
75°	378	757	378	632	378	399
85°	64	137	64	161	64	92
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°	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2
2.5°	4284.2	4252.0	4239.1	4213.3	4165.0	4139.3	4158.6	4126.4	4139.3	4103.8	4139.3
5°	4275.3	4202.9	4142.5	4041.8	3896.9	3727.8	3687.6	3582.9	3518.5	3466.2	3518.5
7.5°	4235.1	4111.1	3926.7	3619.1	3372.0	3251.2	3221.4	3191.6	3183.5	3157.0	3183.5
10°	4202.9	4033.8	3691.6	3345.4	3172.3	3115.9	3128.0	3140.1	3164.2	3160.2	3164.2
12.5°	4157.8	3898.5	3446.8	3206.9	3091.8	3090.2	3179.5	3339.7	3450.9	3443.6	3450.9
15°	4082.1	3639.3	3216.6	3063.6	3027.3	3212.5	3538.6	3615.1	3643.3	3647.3	3643.3
17.5°	3973.4	3385.6	3069.2	2968.6	3091.8	3494.3	3593.4	3628.0	3652.1	3653.8	3652.1
20°	3892.9	3256.8	2995.1	2926.7	3252.8	3510.4	3570.8	3615.1	3655.4	3663.4	3655.4
22.5°	3783.4	3166.6	2917.8	2897.7	3343.0	3494.3	3548.3	3615.1	3648.9	3647.3	3648.9
25°	3595.0	3055.5	2822.0	2866.3	3353.4	3409.8	3514.5	3558.7	3562.8	3566.8	3562.8
27.5°	3388.1	2958.1	2710.1	2887.3	3288.2	3328.5	3441.2	3463.7	3479.0	3472.6	3479.0
30°	3236.7	2890.5	2632.8	2890.5	3236.7	3260.8	3373.6	3389.7	3369.5	3353.4	3369.5
32.5°	3066.0	2806.7	2558.8	2867.9	3159.4	3193.2	3283.4	3276.9	3256.8	3243.9	3256.8
35°	2733.5	2665.0	2423.5	2793.9	3027.3	3071.6	3124.0	3119.9	3115.9	3103.8	3115.9
37.5°	2359.1	2497.6	2289.8	2678.7	2900.1	2896.9	2975.0	2991.9	2987.9	2972.6	2987.9
40°	2133.6	2359.1	2206.1	2588.5	2810.0	2777.8	2878.4	2898.5	2894.5	2882.4	2894.5
42.5°	1966.2	2175.5	2109.5	2479.0	2700.5	2661.8	2785.0	2805.1	2794.7	2785.8	2794.7
45°	1763.3	1799.5	1960.5	2302.7	2516.1	2512.1	2644.9	2665.0	2640.9	2628.8	2640.9
47.5°	1710.1	1450.9	1797.9	2098.2	2333.3	2348.6	2491.1	2508.8	2487.1	2476.6	2487.1
50°	1706.9	1280.2	1678.7	1940.4	2214.2	2242.3	2391.3	2399.3	2371.2	2367.1	2371.2
52.5°	1581.3	1183.6	1540.2	1801.9	2111.1	2145.7	2281.8	2280.2	2277.8	2283.4	2277.8
55°	1437.2	1066.8	1300.3	1598.2	1952.5	1996.8	2117.5	2121.6	2149.7	2157.8	2149.7
57.5°	1389.7	934.8	1078.1	1421.9	1793.1	1827.7	1941.2	1950.9	1970.2	1969.4	1970.2
60°	1296.3	841.4	946.0	1312.4	1670.7	1715.0	1815.6	1831.7	1847.8	1843.8	1847.8
62.5°	1199.7	777.0	881.6	1222.2	1554.7	1602.2	1670.7	1699.7	1706.1	1698.9	1706.1
65°	998.4	692.4	781.0	1078.9	1376.8	1429.1	1473.4	1493.5	1497.6	1489.5	1497.6
67.5°	721.4	614.3	702.1	937.2	1172.3	1231.1	1256.8	1268.9	1264.9	1279.4	1264.9
70°	563.6	559.6	644.1	837.4	1046.7	1099.0	1115.1	1127.2	1123.2	1131.2	1123.2
72.5°	486.3	514.5	582.9	734.3	905.0	957.3	967.0	969.4	981.5	973.4	981.5
75°	378.4	438.8	483.1	579.7	708.5	744.8	748.8	752.8	744.8	756.8	744.8
77.5°	264.1	334.1	373.6	429.1	516.1	538.6	537.8	540.3	533.8	533.0	533.8
80°	209.3	253.6	289.9	326.1	390.5	406.6	402.6	398.5	398.5	394.5	398.5
82.5°	154.6	179.5	212.6	239.1	281.0	284.2	289.9	282.6	282.6	288.2	282.6
85°	64.4	84.5	108.7	120.8	136.9	140.9	132.8	144.9	136.9	136.9	136.9
87.5°	16.1	25.8	38.6	45.1	48.3	45.1	45.1	38.6	38.6	38.6	38.6
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°	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2
2.5°	4126.4	4158.6	4139.3	4165.0	4213.3	4239.1	4252.0	4284.2	4284.2	4303.5	4309.9
5°	3582.9	3687.6	3727.8	3896.9	4041.8	4142.5	4202.9	4275.3	4307.5	4351.8	4367.9
7.5°	3191.6	3221.4	3251.2	3372.0	3619.1	3926.7	4111.1	4235.1	4300.3	4358.3	4381.6
10°	3140.1	3128.0	3115.9	3172.3	3345.4	3691.6	4033.8	4202.9	4287.4	4351.8	4371.9
12.5°	3339.7	3179.5	3090.2	3091.8	3206.9	3446.8	3898.5	4157.8	4268.1	4329.3	4352.6
15°	3615.1	3538.6	3212.5	3027.3	3063.6	3216.6	3639.3	4082.1	4219.0	4275.3	4311.6
17.5°	3628.0	3593.4	3494.3	3091.8	2968.6	3069.2	3385.6	3973.4	4147.3	4214.1	4246.3
20°	3615.1	3570.8	3510.4	3252.8	2926.7	2995.1	3256.8	3892.9	4086.1	4162.6	4194.8
22.5°	3615.1	3548.3	3494.3	3343.0	2897.7	2917.8	3166.6	3783.4	4021.7	4101.4	4133.6
25°	3558.7	3514.5	3409.8	3353.4	2866.3	2822.0	3055.5	3595.0	3917.0	3985.5	4033.8
27.5°	3463.7	3441.2	3328.5	3288.2	2887.3	2710.1	2958.1	3388.1	3772.9	3870.3	3922.7
30°	3389.7	3373.6	3260.8	3236.7	2890.5	2632.8	2890.5	3236.7	3647.3	3780.2	3848.6
32.5°	3276.9	3283.4	3193.2	3159.4	2867.9	2558.8	2806.7	3066.0	3460.5	3686.8	3768.1
35°	3119.9	3124.0	3071.6	3027.3	2793.9	2423.5	2665.0	2733.5	3232.7	3554.7	3623.2
37.5°	2991.9	2975.0	2896.9	2900.1	2678.7	2289.8	2497.6	2359.1	3026.5	3415.4	3465.3
40°	2898.5	2878.4	2777.8	2810.0	2588.5	2206.1	2359.1	2133.6	2830.1	3309.2	3349.4
42.5°	2805.1	2785.0	2661.8	2700.5	2479.0	2109.5	2175.5	1966.2	2614.3	3196.4	3207.7
45°	2665.0	2644.9	2512.1	2516.1	2302.7	1960.5	1799.5	1763.3	2487.9	3015.3	3015.3
47.5°	2508.8	2491.1	2348.6	2333.3	2098.2	1797.9	1450.9	1710.1	2310.8	2820.4	2818.8
50°	2399.3	2391.3	2242.3	2214.2	1940.4	1678.7	1280.2	1706.9	2181.9	2653.0	2693.2
52.5°	2280.2	2281.8	2145.7	2111.1	1801.9	1540.2	1183.6	1581.3	2024.1	2437.2	2564.4
55°	2121.6	2117.5	1996.8	1952.5	1598.2	1300.3	1066.8	1437.2	1779.4	2137.7	2351.0
57.5°	1950.9	1941.2	1827.7	1793.1	1421.9	1078.1	934.8	1389.7	1399.3	1863.9	2136.1
60°	1831.7	1815.6	1715.0	1670.7	1312.4	946.0	841.4	1296.3	1070.8	1670.7	1968.6
62.5°	1699.7	1670.7	1602.2	1554.7	1222.2	881.6	777.0	1199.7	835.7	1451.7	1807.6
65°	1493.5	1473.4	1429.1	1376.8	1078.9	781.0	692.4	998.4	652.2	994.4	1570.0
67.5°	1268.9	1256.8	1231.1	1172.3	937.2	702.1	614.3	721.4	496.0	631.2	1343.8
70°	1127.2	1115.1	1099.0	1046.7	837.4	644.1	559.6	563.6	354.3	467.0	1195.6
72.5°	969.4	967.0	957.3	905.0	734.3	582.9	514.5	486.3	299.5	367.1	1044.3
75°	752.8	748.8	744.8	708.5	579.7	483.1	438.8	378.4	301.9	261.7	817.2
77.5°	540.3	537.8	538.6	516.1	429.1	373.6	334.1	264.1	269.7	198.9	611.9
80°	398.5	402.6	406.6	390.5	326.1	289.9	253.6	209.3	221.4	157.0	467.0
82.5°	282.6	289.9	284.2	281.0	239.1	212.6	179.5	154.6	157.0	124.8	347.8
85°	144.9	132.8	140.9	136.9	120.8	108.7	84.5	64.4	80.5	72.5	173.1
87.5°	38.6	45.1	45.1	48.3	45.1	38.6	25.8	16.1	29.0	35.4	70.9
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°	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2	4255.2
2.5°	4300.3	4300.3	4329.3	4335.7	4342.2	4332.5	4342.2	4335.7	4329.3	4300.3	4300.3
5°	4363.9	4363.9	4404.1	4416.2	4416.2	4408.2	4416.2	4416.2	4404.1	4363.9	4363.9
7.5°	4369.5	4376.0	4416.2	4425.1	4432.3	4420.3	4432.3	4425.1	4416.2	4376.0	4369.5
10°	4359.9	4376.0	4416.2	4428.3	4432.3	4420.3	4432.3	4428.3	4416.2	4376.0	4359.9
12.5°	4347.0	4359.9	4400.1	4409.0	4416.2	4407.4	4416.2	4409.0	4400.1	4359.9	4347.0
15°	4303.5	4319.6	4363.9	4371.9	4380.0	4367.9	4380.0	4371.9	4363.9	4319.6	4303.5
17.5°	4243.1	4263.2	4303.5	4316.4	4320.4	4305.1	4320.4	4316.4	4303.5	4263.2	4243.1
20°	4194.8	4214.9	4255.2	4271.3	4275.3	4263.2	4275.3	4271.3	4255.2	4214.9	4194.8
22.5°	4133.6	4166.6	4203.7	4210.1	4204.5	4192.4	4204.5	4210.1	4203.7	4166.6	4133.6
25°	4045.9	4074.0	4086.1	4086.1	4086.1	4074.0	4086.1	4086.1	4086.1	4074.0	4045.9
27.5°	3933.9	3948.4	3955.7	3962.1	3970.2	3962.1	3970.2	3962.1	3955.7	3948.4	3933.9
30°	3856.7	3848.6	3868.7	3884.8	3892.9	3884.8	3892.9	3884.8	3868.7	3848.6	3856.7
32.5°	3750.4	3755.2	3785.0	3794.7	3796.3	3788.2	3796.3	3794.7	3785.0	3755.2	3750.4
35°	3595.0	3615.1	3635.2	3643.3	3647.3	3635.2	3647.3	3643.3	3635.2	3615.1	3595.0
37.5°	3430.7	3466.2	3480.6	3471.8	3472.6	3459.7	3472.6	3471.8	3480.6	3466.2	3430.7
40°	3321.2	3353.4	3361.5	3349.4	3353.4	3337.3	3353.4	3349.4	3361.5	3353.4	3321.2
42.5°	3218.2	3243.9	3235.9	3220.6	3218.2	3211.7	3218.2	3220.6	3235.9	3243.9	3218.2
45°	3047.5	3059.6	3023.3	3011.2	3003.2	2995.1	3003.2	3011.2	3023.3	3059.6	3047.5
47.5°	2860.7	2844.6	2810.0	2791.4	2768.9	2753.6	2768.9	2791.4	2810.0	2844.6	2860.7
50°	2741.5	2693.2	2665.0	2620.8	2604.6	2608.7	2604.6	2620.8	2665.0	2693.2	2741.5
52.5°	2596.6	2538.6	2494.3	2456.5	2443.6	2441.2	2443.6	2456.5	2494.3	2538.6	2596.6
55°	2387.3	2298.7	2226.2	2206.1	2202.1	2210.1	2202.1	2206.1	2226.2	2298.7	2387.3
57.5°	2130.4	2043.5	1983.9	1967.8	1954.1	1941.2	1954.1	1967.8	1983.9	2043.5	2130.4
60°	1956.5	1876.0	1819.6	1803.5	1767.3	1751.2	1767.3	1803.5	1819.6	1876.0	1956.5
62.5°	1801.9	1705.3	1661.8	1629.6	1603.0	1577.3	1603.0	1629.6	1661.8	1705.3	1801.9
65°	1578.1	1465.4	1421.1	1392.9	1344.6	1332.5	1344.6	1392.9	1421.1	1465.4	1578.1
67.5°	1333.3	1235.1	1179.5	1141.7	1111.1	1110.3	1111.1	1141.7	1179.5	1235.1	1333.3
70°	1175.5	1086.9	1034.6	990.3	966.2	962.1	966.2	990.3	1034.6	1086.9	1175.5
72.5°	1020.9	935.6	889.7	848.6	827.7	823.7	827.7	848.6	889.7	935.6	1020.9
75°	801.1	720.6	684.4	656.2	640.1	632.0	640.1	656.2	684.4	720.6	801.1
77.5°	592.6	527.4	508.9	479.9	466.2	465.4	466.2	479.9	508.9	527.4	592.6
80°	467.0	414.7	386.5	370.4	366.3	362.3	366.3	370.4	386.5	414.7	467.0
82.5°	338.2	308.4	289.9	280.2	279.4	272.1	279.4	280.2	289.9	308.4	338.2
85°	181.2	173.1	169.1	165.1	161.0	161.0	161.0	165.1	169.1	173.1	181.2
87.5°	74.1	77.3	77.3	80.5	83.7	80.5	83.7	80.5	77.3	77.3	74.1
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-100D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	4255.2	4255.2	4255.2	4255.2
2.5°	4309.9	4303.5	4284.2	4284.2
5°	4367.9	4351.8	4307.5	4275.3
7.5°	4381.6	4358.3	4300.3	4235.1
10°	4371.9	4351.8	4287.4	4202.9
12.5°	4352.6	4329.3	4268.1	4157.8
15°	4311.6	4275.3	4219.0	4082.1
17.5°	4246.3	4214.1	4147.3	3973.4
20°	4194.8	4162.6	4086.1	3892.9
22.5°	4133.6	4101.4	4021.7	3783.4
25°	4033.8	3985.5	3917.0	3595.0
27.5°	3922.7	3870.3	3772.9	3388.1
30°	3848.6	3780.2	3647.3	3236.7
32.5°	3768.1	3686.8	3460.5	3066.0
35°	3623.2	3554.7	3232.7	2733.5
37.5°	3465.3	3415.4	3026.5	2359.1
40°	3349.4	3309.2	2830.1	2133.6
42.5°	3207.7	3196.4	2614.3	1966.2
45°	3015.3	3015.3	2487.9	1763.3
47.5°	2818.8	2820.4	2310.8	1710.1
50°	2693.2	2653.0	2181.9	1706.9
52.5°	2564.4	2437.2	2024.1	1581.3
55°	2351.0	2137.7	1779.4	1437.2
57.5°	2136.1	1863.9	1399.3	1389.7
60°	1968.6	1670.7	1070.8	1296.3
62.5°	1807.6	1451.7	835.7	1199.7
65°	1570.0	994.4	652.2	998.4
67.5°	1343.8	631.2	496.0	721.4
70°	1195.6	467.0	354.3	563.6
72.5°	1044.3	367.1	299.5	486.3
75°	817.2	261.7	301.9	378.4
77.5°	611.9	198.9	269.7	264.1
80°	467.0	157.0	221.4	209.3
82.5°	347.8	124.8	157.0	154.6
85°	173.1	72.5	80.5	64.4
87.5°	70.9	35.4	29.0	16.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)