

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P933863

Luminaire Tested: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

Issue Date: 12/17/2024

**Test Information**

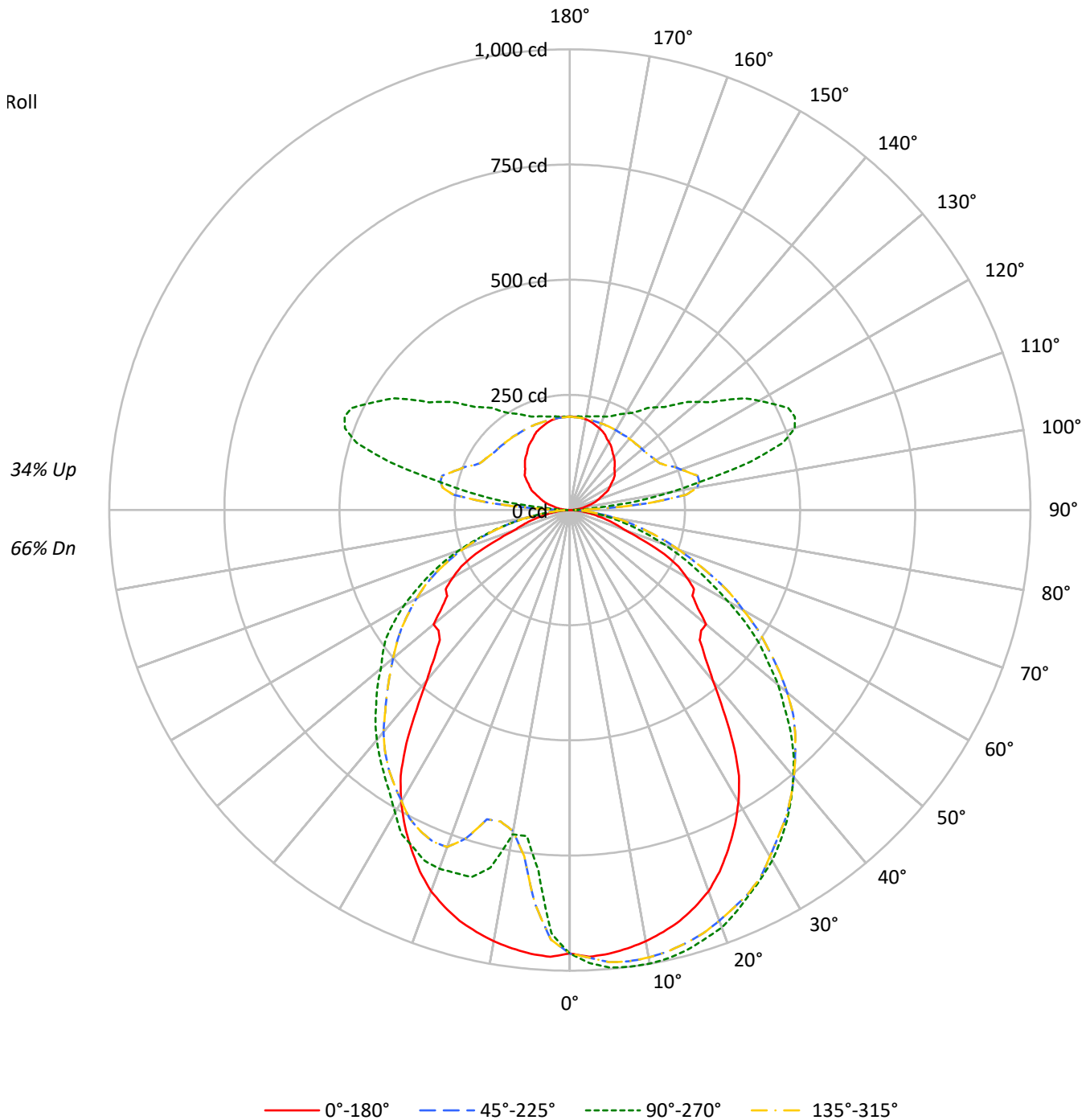
Test Method: LM-79-2019  
Report Number: P933863  
REPORT IS A COMBINATION OF REPORTS P933675 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I  
Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3809.8 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 33  
Input Voltage (V): NR  
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			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66			
1	101	97	93	89	95	91	88	85	81	78	76	71	69	68	62	61	60	55			
2	92	85	78	73	87	80	74	70	71	67	63	63	59	56	55	52	50	46			
3	84	75	67	61	79	70	64	58	63	57	53	55	51	48	49	46	43	39			
4	77	66	58	52	72	62	55	49	56	50	45	49	45	41	43	40	37	34			
5	71	59	50	44	66	56	48	43	50	44	39	44	39	35	39	35	32	29			
6	65	53	45	39	61	50	43	37	45	39	34	40	35	31	35	31	28	26			
7	60	48	40	34	57	45	38	33	41	35	30	36	31	28	32	28	25	23			
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	26	22	20			
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18			
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	16			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	5954	5954	5954	5954
5°	5996	6010	5996	4726
10°	5954	5920	5954	4233
15°	5888	5792	5888	4837
20°	5762	5640	5762	4847
25°	5507	5419	5507	4744
30°	5180	5235	5180	4519
35°	4615	5002	4615	4270
40°	3843	4728	3843	4084
45°	3432	4407	3432	3868
50°	3643	4025	3643	3652
55°	3424	3613	3424	3527
60°	3526	3068	3526	3230
65°	3191	2536	3191	2835
70°	2203	2021	2203	2377
75°	1926	1494	1926	1789
80°	1540	987	1540	1075
85°	870	523	870	445

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 20°  
 Vertical Angle: 45°  
 Luminance: 5263 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.9	2.3
10°-20°	246.7	6.5
20°-30°	381.3	10.0
30°-40°	455.2	11.9
40°-50°	457.9	12.0
50°-60°	398.4	10.5
60°-70°	282.5	7.4
70°-80°	149.4	3.9
80°-90°	38.0	1.0
90°-100°	98.7	2.6
100°-110°	259.7	6.8
110°-120°	269.2	7.1
120°-130°	216.0	5.7
130°-140°	169.5	4.4
140°-150°	130.1	3.4
150°-160°	93.7	2.5
160°-170°	57.3	1.5
170°-180°	19.4	0.5
0°-30°	714.9	18.8
0°-40°	1170.1	30.7
0°-60°	2026.4	53.2
0°-90°	2496.3	65.5
90°-120°	627.7	16.5
90°-150°	1143.2	30.0
90°-180°	1313.0	34.5
0°-180°	3809.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	962	962	962	962	962	
5°	967	997	967	784	967	92
15°	923	988	923	825	923	260
25°	813	922	813	807	813	373
35°	618	822	618	702	618	383
45°	399	677	399	595	399	319
55°	325	500	325	488	325	299
65°	226	301	226	337	226	216
75°	86	143	86	171	86	90
85°	15	36	15	31	15	20
90°	1	5	1	5	1	2
95°	13	60	13	60	13	14
105°	47	407	47	407	47	50
115°	83	524	83	524	83	82
125°	116	417	116	417	116	103
135°	138	324	138	324	138	107
145°	160	262	160	262	160	100
155°	181	226	181	226	181	83
165°	195	210	195	210	195	55
175°	203	204	203	204	203	19
180°	203	203	203	203	203	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5
2.5°	970.7	970.7	976.1	977.9	977.9	975.2	972.5	975.2	983.5	986.2	985.3
5°	967.0	974.3	984.4	986.2	988.0	987.1	985.3	987.1	996.1	998.0	998.9
7.5°	959.7	973.4	986.2	988.9	991.6	988.9	988.0	989.8	998.9	1000.7	1000.7
10°	950.6	969.8	984.4	986.2	988.9	986.2	986.2	989.8	998.9	1000.7	1001.7
12.5°	937.9	964.3	977.9	979.7	983.5	982.6	981.6	985.3	994.3	996.1	996.1
15°	923.4	954.3	967.0	968.9	975.2	973.4	973.4	977.0	987.1	989.8	988.9
17.5°	903.3	941.5	956.1	958.8	963.4	962.5	963.4	967.0	976.1	977.9	978.8
20°	880.5	924.3	941.5	944.3	948.8	948.8	948.8	953.4	962.5	966.1	966.1
22.5°	849.6	906.0	924.3	926.1	931.5	931.5	933.3	939.7	947.9	948.8	948.8
25°	813.1	886.0	901.4	907.0	912.4	915.1	917.8	921.5	924.3	923.4	924.3
27.5°	774.9	860.4	880.5	884.2	891.5	894.2	897.8	898.7	899.6	902.4	900.5
30°	732.1	825.0	855.0	858.6	870.5	872.3	868.7	870.5	875.0	876.9	878.7
32.5°	683.8	772.2	828.6	836.8	847.8	842.3	841.3	844.1	851.4	851.4	853.2
35°	618.3	731.2	804.1	811.3	819.5	813.1	816.8	817.7	822.2	825.0	824.1
37.5°	546.4	695.7	778.5	784.0	790.4	782.1	787.7	790.4	794.0	792.2	792.2
40°	482.6	640.1	748.5	752.1	757.6	751.2	756.7	758.5	760.3	758.5	757.6
42.5°	435.3	579.1	716.6	721.1	717.5	722.0	723.9	727.6	724.9	721.1	721.1
45°	398.8	562.7	682.0	687.5	682.0	689.3	692.0	692.0	683.8	682.0	681.1
47.5°	387.0	530.0	647.5	647.5	644.7	653.8	658.3	652.0	643.8	641.0	641.0
50°	386.1	493.5	600.0	596.4	609.2	620.1	615.5	609.2	602.8	592.8	592.8
52.5°	350.6	448.9	539.0	552.7	572.8	579.1	571.9	565.5	554.5	550.0	546.4
55°	325.0	402.4	483.5	510.9	531.8	539.9	526.4	519.9	503.5	500.8	499.0
57.5°	319.6	335.1	432.5	467.2	492.6	491.7	483.5	471.7	458.0	455.3	454.4
60°	293.2	242.2	377.9	418.9	445.2	442.5	435.3	424.3	411.6	409.8	408.0
62.5°	265.8	175.8	316.0	362.4	399.7	398.8	392.5	376.1	367.0	362.4	358.8
65°	225.8	147.5	224.9	301.4	355.1	356.9	343.3	331.5	321.4	316.0	315.1
67.5°	172.1	120.2	152.1	251.4	312.4	310.5	293.2	287.8	275.0	272.3	266.8
70°	127.4	80.1	105.6	203.9	270.5	265.8	252.3	245.8	234.0	227.6	224.0
72.5°	105.6	64.6	77.4	158.4	227.6	222.2	210.4	203.0	193.1	187.5	183.9
75°	85.6	68.2	59.2	117.5	184.8	181.2	170.3	163.0	154.8	147.5	148.4
77.5°	62.8	63.7	47.3	86.5	146.6	141.1	134.8	125.6	122.0	114.8	114.8
80°	47.3	50.1	35.5	59.2	105.6	105.6	100.2	93.8	87.4	83.8	83.8
82.5°	31.9	31.9	26.4	37.3	72.0	69.2	65.5	63.7	60.1	58.3	58.3
85°	14.6	18.2	16.4	22.7	39.2	41.0	41.0	39.2	38.3	36.4	37.3
87.5°	4.5	8.2	10.0	12.8	20.0	20.9	21.8	21.8	21.8	22.7	22.7
90°	1.4	2.4	3.5	3.8	6.0	8.9	10.3	9.1	6.9	5.2	5.2
92.5°	5.4	14.7	23.9	26.2	36.9	51.1	58.2	51.0	36.6	25.8	24.8
95°	13.0	30.0	46.9	51.1	90.8	143.6	170.1	151.8	115.1	87.7	84.6
97.5°	22.5	37.5	52.4	56.1	122.3	210.4	254.5	242.9	219.9	202.5	196.6
100°	30.0	43.4	57.0	60.4	133.8	231.6	280.5	281.3	283.0	284.3	277.3
102.5°	36.2	48.9	61.5	64.6	139.0	238.2	287.8	302.6	332.1	354.3	348.2
105°	46.8	57.5	68.2	70.9	142.9	239.0	287.0	320.1	386.2	435.8	432.6
107.5°	57.7	67.6	77.6	80.1	143.6	228.4	270.7	316.9	409.1	478.3	479.1
110°	65.0	74.0	83.0	85.3	142.6	219.0	257.2	308.8	411.8	489.1	492.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	72.2	80.8	89.3	91.5	142.6	210.7	244.8	297.5	403.1	482.2	487.3
115°	83.1	91.1	98.9	100.9	143.9	201.2	229.9	280.8	382.4	458.6	465.9
117.5°	93.9	101.0	108.2	110.0	146.5	195.3	219.8	265.7	357.4	426.1	434.1
120°	100.1	106.9	113.6	115.3	148.8	193.4	215.7	257.6	341.4	404.3	412.1
122.5°	106.2	113.1	119.8	121.6	151.9	192.3	212.5	250.3	325.8	382.4	390.1
125°	115.6	121.8	128.1	129.6	156.1	191.5	209.2	241.2	305.4	353.5	360.5
127.5°	123.2	129.4	135.8	137.3	160.3	191.0	206.3	233.8	288.9	330.2	336.2
130°	127.3	134.1	140.8	142.5	163.4	191.3	205.2	229.7	278.7	315.4	321.0
132.5°	131.5	138.3	145.0	146.7	165.9	191.5	204.3	226.2	270.1	303.0	307.8
135°	137.8	143.9	150.1	151.6	168.6	191.4	202.7	221.0	257.8	285.3	289.6
137.5°	144.2	150.3	156.3	157.9	172.7	192.5	202.4	218.0	249.0	272.3	275.7
140°	149.4	155.1	160.7	162.1	175.2	192.7	201.4	214.8	241.7	261.8	265.0
142.5°	153.5	158.7	163.9	165.2	177.2	193.3	201.4	213.2	236.8	254.4	257.2
145°	159.8	164.3	168.8	170.0	180.0	193.3	200.0	209.6	228.9	243.4	245.5
147.5°	166.0	170.4	174.9	176.0	184.0	194.7	200.0	207.6	222.8	234.2	235.9
150°	170.1	174.1	178.1	179.1	186.1	195.4	200.0	206.5	219.2	228.8	230.3
152.5°	174.3	177.3	180.4	181.1	187.5	195.9	200.0	205.5	216.4	224.7	225.7
155°	180.6	182.8	185.1	185.6	190.4	196.9	200.0	204.4	213.1	219.6	220.3
157.5°	185.2	187.4	189.5	190.1	193.4	197.9	200.0	203.4	210.2	215.2	215.8
160°	188.4	190.1	191.7	192.2	194.8	198.3	200.0	202.9	208.7	213.1	213.3
162.5°	191.4	192.7	194.0	194.3	196.2	198.8	200.0	202.5	207.4	211.1	211.4
165°	194.9	196.0	197.1	197.4	198.3	199.5	200.0	201.8	205.3	207.9	208.2
167.5°	198.0	198.5	199.0	199.2	200.0	200.9	201.4	202.6	204.8	206.6	206.6
170°	200.0	200.6	201.1	201.2	201.3	201.4	201.4	202.6	204.8	206.6	206.6
172.5°	201.1	201.2	201.4	201.4	201.4	201.4	201.4	202.3	204.1	205.5	205.4
175°	202.7	202.7	202.7	202.7	202.2	201.7	201.4	201.9	203.1	204.0	204.0
177.5°	202.7	202.7	202.7	202.7	202.3	201.9	201.7	202.1	203.0	203.8	203.7
180°	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5
2.5°	987.1	984.4	987.1	985.3	986.2	983.5	975.2	972.5	975.2	977.9	977.9
5°	998.9	997.0	998.9	998.9	998.0	996.1	987.1	985.3	987.1	988.0	986.2
7.5°	1002.6	999.8	1002.6	1000.7	1000.7	998.9	989.8	988.0	988.9	991.6	988.9
10°	1002.6	999.8	1002.6	1001.7	1000.7	998.9	989.8	986.2	986.2	988.9	986.2
12.5°	998.0	996.1	998.0	996.1	996.1	994.3	985.3	981.6	982.6	983.5	979.7
15°	990.7	988.0	990.7	988.9	989.8	987.1	977.0	973.4	973.4	975.2	968.9
17.5°	979.7	976.1	979.7	978.8	977.9	976.1	967.0	963.4	962.5	963.4	958.8
20°	967.0	964.3	967.0	966.1	966.1	962.5	953.4	948.8	948.8	948.8	944.3
22.5°	947.0	944.3	947.0	948.8	948.8	947.9	939.7	933.3	931.5	931.5	926.1
25°	924.3	921.5	924.3	924.3	923.4	924.3	921.5	917.8	915.1	912.4	907.0
27.5°	902.4	900.5	902.4	900.5	902.4	899.6	898.7	897.8	894.2	891.5	884.2
30°	880.5	878.7	880.5	878.7	876.9	875.0	870.5	868.7	872.3	870.5	858.6
32.5°	853.2	851.4	853.2	853.2	851.4	851.4	844.1	841.3	842.3	847.8	836.8
35°	825.0	822.2	825.0	824.1	825.0	822.2	817.7	816.8	813.1	819.5	811.3
37.5°	792.2	789.5	792.2	792.2	792.2	794.0	790.4	787.7	782.1	790.4	784.0
40°	758.5	754.9	758.5	757.6	758.5	760.3	758.5	756.7	751.2	757.6	752.1
42.5°	720.2	719.3	720.2	721.1	721.1	724.9	727.6	723.9	722.0	717.5	721.1
45°	679.3	677.4	679.3	681.1	682.0	683.8	692.0	692.0	689.3	682.0	687.5
47.5°	635.6	631.0	635.6	641.0	641.0	643.8	652.0	658.3	653.8	644.7	647.5
50°	589.2	590.1	589.2	592.8	592.8	602.8	609.2	615.5	620.1	609.2	596.4
52.5°	543.6	542.7	543.6	546.4	550.0	554.5	565.5	571.9	579.1	572.8	552.7
55°	498.1	499.9	498.1	499.0	500.8	503.5	519.9	526.4	539.9	531.8	510.9
57.5°	452.6	449.9	452.6	454.4	455.3	458.0	471.7	483.5	491.7	492.6	467.2
60°	399.7	396.1	399.7	408.0	409.8	411.6	424.3	435.3	442.5	445.2	418.9
62.5°	353.3	346.9	353.3	358.8	362.4	367.0	376.1	392.5	398.8	399.7	362.4
65°	304.1	301.4	304.1	315.1	316.0	321.4	331.5	343.3	356.9	355.1	301.4
67.5°	259.5	259.5	259.5	266.8	272.3	275.0	287.8	293.2	310.5	312.4	251.4
70°	218.5	217.6	218.5	224.0	227.6	234.0	245.8	252.3	265.8	270.5	203.9
72.5°	179.4	178.5	179.4	183.9	187.5	193.1	203.0	210.4	222.2	227.6	158.4
75°	144.8	142.9	144.8	148.4	147.5	154.8	163.0	170.3	181.2	184.8	117.5
77.5°	111.1	111.1	111.1	114.8	114.8	122.0	125.6	134.8	141.1	146.6	86.5
80°	82.8	81.9	82.8	83.8	83.8	87.4	93.8	100.2	105.6	105.6	59.2
82.5°	58.3	56.5	58.3	58.3	58.3	60.1	63.7	65.5	69.2	72.0	37.3
85°	36.4	36.4	36.4	37.3	36.4	38.3	39.2	41.0	41.0	39.2	22.7
87.5°	23.7	22.7	23.7	22.7	22.7	21.8	21.8	21.8	20.9	20.0	12.8
90°	5.2	5.2	5.2	5.2	5.2	6.9	9.1	10.3	8.9	6.0	3.8
92.5°	20.6	16.6	20.6	24.8	25.8	36.6	51.0	58.2	51.1	36.9	26.2
95°	72.1	59.7	72.1	84.6	87.7	115.1	151.8	170.1	143.6	90.8	51.1
97.5°	172.9	149.2	172.9	196.6	202.5	219.9	242.9	254.5	210.4	122.3	56.1
100°	249.1	220.9	249.1	277.3	284.3	283.0	281.3	280.5	231.6	133.8	60.4
102.5°	324.0	299.9	324.0	348.2	354.3	332.1	302.6	287.8	238.2	139.0	64.6
105°	419.6	406.6	419.6	432.6	435.8	386.2	320.1	287.0	239.0	142.9	70.9
107.5°	482.2	485.3	482.2	479.1	478.3	409.1	316.9	270.7	228.4	143.6	80.1
110°	506.1	519.7	506.1	492.5	489.1	411.8	308.8	257.2	219.0	142.6	85.3





TEST NUMBER: P933863

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	508.2	529.0	508.2	487.3	482.2	403.1	297.5	244.8	210.7	142.6	91.5
115°	494.7	523.5	494.7	465.9	458.6	382.4	280.8	229.9	201.2	143.9	100.9
117.5°	466.2	498.1	466.2	434.1	426.1	357.4	265.7	219.8	195.3	146.5	110.0
120°	443.2	474.2	443.2	412.1	404.3	341.4	257.6	215.7	193.4	148.8	115.3
122.5°	420.7	451.3	420.7	390.1	382.4	325.8	250.3	212.5	192.3	151.9	121.6
125°	388.7	416.9	388.7	360.5	353.5	305.4	241.2	209.2	191.5	156.1	129.6
127.5°	360.0	383.8	360.0	336.2	330.2	288.9	233.8	206.3	191.0	160.3	137.3
130°	343.0	365.0	343.0	321.0	315.4	278.7	229.7	205.2	191.3	163.4	142.5
132.5°	327.6	347.3	327.6	307.8	303.0	270.1	226.2	204.3	191.5	165.9	146.7
135°	306.5	323.5	306.5	289.6	285.3	257.8	221.0	202.7	191.4	168.6	151.6
137.5°	289.7	303.5	289.7	275.7	272.3	249.0	218.0	202.4	192.5	172.7	157.9
140°	278.0	291.0	278.0	265.0	261.8	241.7	214.8	201.4	192.7	175.2	162.1
142.5°	268.4	279.6	268.4	257.2	254.4	236.8	213.2	201.4	193.3	177.2	165.2
145°	254.0	262.5	254.0	245.5	243.4	228.9	209.6	200.0	193.3	180.0	170.0
147.5°	242.9	249.9	242.9	235.9	234.2	222.8	207.6	200.0	194.7	184.0	176.0
150°	236.0	241.7	236.0	230.3	228.8	219.2	206.5	200.0	195.4	186.1	179.1
152.5°	230.0	234.3	230.0	225.7	224.7	216.4	205.5	200.0	195.9	187.5	181.1
155°	223.1	226.0	223.1	220.3	219.6	213.1	204.4	200.0	196.9	190.4	185.6
157.5°	217.8	219.8	217.8	215.8	215.2	210.2	203.4	200.0	197.9	193.4	190.1
160°	214.5	215.7	214.5	213.3	213.1	208.7	202.9	200.0	198.3	194.8	192.2
162.5°	212.4	213.5	212.4	211.4	211.1	207.4	202.5	200.0	198.8	196.2	194.3
165°	209.4	210.5	209.4	208.2	207.9	205.3	201.8	200.0	199.5	198.3	197.4
167.5°	207.2	207.6	207.2	206.6	206.6	204.8	202.6	201.4	200.9	200.0	199.2
170°	206.6	206.6	206.6	206.6	206.6	204.8	202.6	201.4	201.4	201.3	201.2
172.5°	204.9	204.6	204.9	205.4	205.5	204.1	202.3	201.4	201.4	201.4	201.4
175°	204.0	204.0	204.0	204.0	204.0	203.1	201.9	201.4	201.7	202.2	202.7
177.5°	203.1	202.7	203.1	203.7	203.8	203.0	202.1	201.7	201.9	202.3	202.7
180°	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7



TEST NUMBER: P933863

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5
2.5°	976.1	970.7	970.7	961.6	957.9	955.2	950.6	937.0	933.3	929.7	935.1
5°	984.4	974.3	967.0	950.6	937.0	931.5	914.2	881.4	859.5	843.2	834.1
7.5°	986.2	973.4	959.7	934.2	901.4	886.9	834.1	774.0	757.6	743.0	733.9
10°	984.4	969.8	950.6	912.4	835.0	809.5	756.7	717.5	707.5	704.8	707.5
12.5°	977.9	964.3	937.9	874.1	765.8	748.5	717.5	694.8	692.9	697.5	722.0
15°	967.0	954.3	923.4	823.2	727.6	714.8	692.9	684.8	694.8	726.7	800.4
17.5°	956.1	941.5	903.3	773.1	698.4	689.3	673.8	690.2	746.7	789.5	814.0
20°	941.5	924.3	880.5	736.6	677.4	669.3	661.9	735.7	778.5	794.0	807.7
22.5°	924.3	906.0	849.6	711.2	655.6	649.3	653.8	761.2	778.5	789.5	801.3
25°	901.4	886.0	813.1	691.1	638.3	631.0	648.4	758.5	768.5	771.3	794.9
27.5°	880.5	860.4	774.9	672.9	617.4	614.6	652.9	746.7	754.0	756.7	782.1
30°	855.0	825.0	732.1	653.8	595.5	594.6	653.8	732.1	730.3	737.5	763.1
32.5°	828.6	772.2	683.8	630.1	574.6	573.7	647.5	710.3	708.5	718.4	737.5
35°	804.1	731.2	618.3	602.8	548.2	549.1	631.9	684.8	685.7	694.8	706.6
37.5°	778.5	695.7	546.4	572.8	522.6	522.6	611.0	661.0	659.2	661.9	678.4
40°	748.5	640.1	482.6	533.6	499.0	496.3	585.5	635.6	629.2	628.3	651.1
42.5°	716.6	579.1	435.3	481.7	471.7	468.1	554.5	604.6	592.8	595.5	624.7
45°	682.0	562.7	398.8	407.1	443.4	440.7	520.8	569.1	560.9	568.2	598.2
47.5°	647.5	530.0	387.0	337.8	413.4	412.5	483.5	534.5	530.0	537.2	569.1
50°	600.0	493.5	386.1	289.6	379.7	383.3	438.9	500.8	500.8	507.2	540.9
52.5°	539.0	448.9	350.6	262.2	340.5	351.5	399.7	471.7	473.5	479.9	509.9
55°	483.5	402.4	325.0	241.3	294.1	317.8	361.5	441.6	445.2	451.7	478.9
57.5°	432.5	335.1	319.6	216.7	251.4	274.1	327.8	412.5	414.3	419.8	446.2
60°	377.9	242.2	293.2	190.3	214.0	231.3	296.8	377.9	384.2	387.9	410.7
62.5°	316.0	175.8	265.8	172.1	195.8	199.4	271.4	345.1	353.3	356.0	369.7
65°	224.9	147.5	225.8	156.6	176.7	177.6	244.0	311.4	318.7	323.2	333.3
67.5°	152.1	120.2	172.1	142.0	162.1	163.0	217.6	272.3	282.3	285.9	292.3
70°	105.6	80.1	127.4	126.5	145.7	147.5	189.4	236.8	245.8	248.6	252.3
72.5°	77.4	64.6	105.6	113.8	128.4	130.3	160.3	196.7	205.8	208.5	210.4
75°	59.2	68.2	85.6	99.3	109.3	110.2	131.2	160.3	166.6	168.5	169.4
77.5°	47.3	63.7	62.8	80.1	89.2	87.4	102.9	123.8	129.3	129.3	129.3
80°	35.5	50.1	47.3	57.4	65.5	63.7	73.8	88.3	90.2	92.0	91.1
82.5°	26.4	31.9	31.9	36.4	43.7	41.9	49.2	57.4	57.4	57.4	59.2
85°	16.4	18.2	14.6	19.1	24.6	23.7	27.3	31.0	31.9	31.9	30.1
87.5°	10.0	8.2	4.5	7.2	11.0	11.0	12.8	13.7	12.8	12.8	12.8
90°	3.5	2.4	1.4	2.4	3.5	3.8	6.0	8.9	10.3	9.1	6.9
92.5°	23.9	14.7	5.4	14.7	23.9	26.2	36.9	51.1	58.2	51.0	36.6
95°	46.9	30.0	13.0	30.0	46.9	51.1	90.8	143.6	170.1	151.8	115.1
97.5°	52.4	37.5	22.5	37.5	52.4	56.1	122.3	210.4	254.5	242.9	219.9
100°	57.0	43.4	30.0	43.4	57.0	60.4	133.8	231.6	280.5	281.3	283.0
102.5°	61.5	48.9	36.2	48.9	61.5	64.6	139.0	238.2	287.8	302.6	332.1
105°	68.2	57.5	46.8	57.5	68.2	70.9	142.9	239.0	287.0	320.1	386.2
107.5°	77.6	67.6	57.7	67.6	77.6	80.1	143.6	228.4	270.7	316.9	409.1
110°	83.0	74.0	65.0	74.0	83.0	85.3	142.6	219.0	257.2	308.8	411.8



TEST NUMBER: P933863

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

**CANDELA DISTRIBUTION (continued):**

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	89.3	80.8	72.2	80.8	89.3	91.5	142.6	210.7	244.8	297.5	403.1
115°	98.9	91.1	83.1	91.1	98.9	100.9	143.9	201.2	229.9	280.8	382.4
117.5°	108.2	101.0	93.9	101.0	108.2	110.0	146.5	195.3	219.8	265.7	357.4
120°	113.6	106.9	100.1	106.9	113.6	115.3	148.8	193.4	215.7	257.6	341.4
122.5°	119.8	113.1	106.2	113.1	119.8	121.6	151.9	192.3	212.5	250.3	325.8
125°	128.1	121.8	115.6	121.8	128.1	129.6	156.1	191.5	209.2	241.2	305.4
127.5°	135.8	129.4	123.2	129.4	135.8	137.3	160.3	191.0	206.3	233.8	288.9
130°	140.8	134.1	127.3	134.1	140.8	142.5	163.4	191.3	205.2	229.7	278.7
132.5°	145.0	138.3	131.5	138.3	145.0	146.7	165.9	191.5	204.3	226.2	270.1
135°	150.1	143.9	137.8	143.9	150.1	151.6	168.6	191.4	202.7	221.0	257.8
137.5°	156.3	150.3	144.2	150.3	156.3	157.9	172.7	192.5	202.4	218.0	249.0
140°	160.7	155.1	149.4	155.1	160.7	162.1	175.2	192.7	201.4	214.8	241.7
142.5°	163.9	158.7	153.5	158.7	163.9	165.2	177.2	193.3	201.4	213.2	236.8
145°	168.8	164.3	159.8	164.3	168.8	170.0	180.0	193.3	200.0	209.6	228.9
147.5°	174.9	170.4	166.0	170.4	174.9	176.0	184.0	194.7	200.0	207.6	222.8
150°	178.1	174.1	170.1	174.1	178.1	179.1	186.1	195.4	200.0	206.5	219.2
152.5°	180.4	177.3	174.3	177.3	180.4	181.1	187.5	195.9	200.0	205.5	216.4
155°	185.1	182.8	180.6	182.8	185.1	185.6	190.4	196.9	200.0	204.4	213.1
157.5°	189.5	187.4	185.2	187.4	189.5	190.1	193.4	197.9	200.0	203.4	210.2
160°	191.7	190.1	188.4	190.1	191.7	192.2	194.8	198.3	200.0	202.9	208.7
162.5°	194.0	192.7	191.4	192.7	194.0	194.3	196.2	198.8	200.0	202.5	207.4
165°	197.1	196.0	194.9	196.0	197.1	197.4	198.3	199.5	200.0	201.8	205.3
167.5°	199.0	198.5	198.0	198.5	199.0	199.2	200.0	200.9	201.4	202.6	204.8
170°	201.1	200.6	200.0	200.6	201.1	201.2	201.3	201.4	201.4	202.6	204.8
172.5°	201.4	201.2	201.1	201.2	201.4	201.4	201.4	201.4	201.4	202.3	204.1
175°	202.7	202.7	202.7	202.7	202.7	202.7	202.2	201.7	201.4	201.9	203.1
177.5°	202.7	202.7	202.7	202.7	202.7	202.7	202.3	201.9	201.7	202.1	203.0
180°	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7



TEST NUMBER: P933863

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5
2.5°	928.8	926.1	929.7	919.6	929.7	926.1	928.8	935.1	929.7	933.3	937.0
5°	815.0	810.4	795.8	784.0	795.8	810.4	815.0	834.1	843.2	859.5	881.4
7.5°	728.5	724.9	721.1	713.9	721.1	724.9	728.5	733.9	743.0	757.6	774.0
10°	709.4	710.3	715.7	714.8	715.7	710.3	709.4	707.5	704.8	707.5	717.5
12.5°	758.5	766.7	796.7	794.9	796.7	766.7	758.5	722.0	697.5	692.9	694.8
15°	815.0	817.7	824.1	825.0	824.1	817.7	815.0	800.4	726.7	694.8	684.8
17.5°	820.4	821.3	825.9	825.9	825.9	821.3	820.4	814.0	789.5	746.7	690.2
20°	815.9	817.7	826.8	828.6	826.8	817.7	815.9	807.7	794.0	778.5	735.7
22.5°	814.0	817.7	825.0	824.1	825.0	817.7	814.0	801.3	789.5	778.5	761.2
25°	805.0	805.0	805.9	806.8	805.9	805.0	805.0	794.9	771.3	768.5	758.5
27.5°	785.9	787.7	793.1	792.2	793.1	787.7	785.9	782.1	756.7	754.0	746.7
30°	768.5	766.7	762.1	758.5	762.1	766.7	768.5	763.1	737.5	730.3	732.1
32.5°	739.4	734.8	730.3	727.6	730.3	734.8	739.4	737.5	718.4	708.5	710.3
35°	704.8	705.7	704.8	702.0	704.8	705.7	704.8	706.6	694.8	685.7	684.8
37.5°	680.2	682.0	681.1	677.4	681.1	682.0	680.2	678.4	661.9	659.2	661.0
40°	654.7	655.6	654.7	652.0	654.7	655.6	654.7	651.1	628.3	629.2	635.6
42.5°	630.1	629.2	626.5	624.7	626.5	629.2	630.1	624.7	595.5	592.8	604.6
45°	601.9	602.8	597.3	594.6	597.3	602.8	601.9	598.2	568.2	560.9	569.1
47.5°	573.7	573.7	569.1	566.4	569.1	573.7	573.7	569.1	537.2	530.0	534.5
50°	543.6	542.7	536.3	535.4	536.3	542.7	543.6	540.9	507.2	500.8	500.8
52.5°	509.0	509.0	509.9	511.8	509.9	509.0	509.0	509.9	479.9	473.5	471.7
55°	478.9	479.9	486.3	488.1	486.3	479.9	478.9	478.9	451.7	445.2	441.6
57.5°	448.0	448.0	452.6	452.6	452.6	448.0	448.0	446.2	419.8	414.3	412.5
60°	412.5	414.3	417.9	417.0	417.9	414.3	412.5	410.7	387.9	384.2	377.9
62.5°	375.2	377.0	377.9	376.1	377.9	377.0	375.2	369.7	356.0	353.3	345.1
65°	336.0	337.8	338.7	336.9	338.7	337.8	336.0	333.3	323.2	318.7	311.4
67.5°	295.9	295.0	294.1	297.8	294.1	295.0	295.9	292.3	285.9	282.3	272.3
70°	255.0	255.0	254.1	255.9	254.1	255.0	255.0	252.3	248.6	245.8	236.8
72.5°	211.3	210.4	214.0	211.3	214.0	210.4	211.3	210.4	208.5	205.8	196.7
75°	168.5	170.3	168.5	171.2	168.5	170.3	168.5	169.4	168.5	166.6	160.3
77.5°	128.4	130.3	128.4	128.4	128.4	130.3	128.4	129.3	129.3	129.3	123.8
80°	91.1	90.2	90.2	89.2	90.2	90.2	91.1	91.1	92.0	90.2	88.3
82.5°	58.3	57.4	57.4	59.2	57.4	57.4	58.3	59.2	57.4	57.4	57.4
85°	31.9	32.8	31.0	31.0	31.0	32.8	31.9	30.1	31.9	31.9	31.0
87.5°	11.9	11.0	11.0	11.0	11.0	11.0	11.9	12.8	12.8	12.8	13.7
90°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	6.9	9.1	10.3	8.9
92.5°	25.8	24.8	20.6	16.6	20.6	24.8	25.8	36.6	51.0	58.2	51.1
95°	87.7	84.6	72.1	59.7	72.1	84.6	87.7	115.1	151.8	170.1	143.6
97.5°	202.5	196.6	172.9	149.2	172.9	196.6	202.5	219.9	242.9	254.5	210.4
100°	284.3	277.3	249.1	220.9	249.1	277.3	284.3	283.0	281.3	280.5	231.6
102.5°	354.3	348.2	324.0	299.9	324.0	348.2	354.3	332.1	302.6	287.8	238.2
105°	435.8	432.6	419.6	406.6	419.6	432.6	435.8	386.2	320.1	287.0	239.0
107.5°	478.3	479.1	482.2	485.3	482.2	479.1	478.3	409.1	316.9	270.7	228.4
110°	489.1	492.5	506.1	519.7	506.1	492.5	489.1	411.8	308.8	257.2	219.0



TEST NUMBER: P933863

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	482.2	487.3	508.2	529.0	508.2	487.3	482.2	403.1	297.5	244.8	210.7
115°	458.6	465.9	494.7	523.5	494.7	465.9	458.6	382.4	280.8	229.9	201.2
117.5°	426.1	434.1	466.2	498.1	466.2	434.1	426.1	357.4	265.7	219.8	195.3
120°	404.3	412.1	443.2	474.2	443.2	412.1	404.3	341.4	257.6	215.7	193.4
122.5°	382.4	390.1	420.7	451.3	420.7	390.1	382.4	325.8	250.3	212.5	192.3
125°	353.5	360.5	388.7	416.9	388.7	360.5	353.5	305.4	241.2	209.2	191.5
127.5°	330.2	336.2	360.0	383.8	360.0	336.2	330.2	288.9	233.8	206.3	191.0
130°	315.4	321.0	343.0	365.0	343.0	321.0	315.4	278.7	229.7	205.2	191.3
132.5°	303.0	307.8	327.6	347.3	327.6	307.8	303.0	270.1	226.2	204.3	191.5
135°	285.3	289.6	306.5	323.5	306.5	289.6	285.3	257.8	221.0	202.7	191.4
137.5°	272.3	275.7	289.7	303.5	289.7	275.7	272.3	249.0	218.0	202.4	192.5
140°	261.8	265.0	278.0	291.0	278.0	265.0	261.8	241.7	214.8	201.4	192.7
142.5°	254.4	257.2	268.4	279.6	268.4	257.2	254.4	236.8	213.2	201.4	193.3
145°	243.4	245.5	254.0	262.5	254.0	245.5	243.4	228.9	209.6	200.0	193.3
147.5°	234.2	235.9	242.9	249.9	242.9	235.9	234.2	222.8	207.6	200.0	194.7
150°	228.8	230.3	236.0	241.7	236.0	230.3	228.8	219.2	206.5	200.0	195.4
152.5°	224.7	225.7	230.0	234.3	230.0	225.7	224.7	216.4	205.5	200.0	195.9
155°	219.6	220.3	223.1	226.0	223.1	220.3	219.6	213.1	204.4	200.0	196.9
157.5°	215.2	215.8	217.8	219.8	217.8	215.8	215.2	210.2	203.4	200.0	197.9
160°	213.1	213.3	214.5	215.7	214.5	213.3	213.1	208.7	202.9	200.0	198.3
162.5°	211.1	211.4	212.4	213.5	212.4	211.4	211.1	207.4	202.5	200.0	198.8
165°	207.9	208.2	209.4	210.5	209.4	208.2	207.9	205.3	201.8	200.0	199.5
167.5°	206.6	206.6	207.2	207.6	207.2	206.6	206.6	204.8	202.6	201.4	200.9
170°	206.6	206.6	206.6	206.6	206.6	206.6	206.6	204.8	202.6	201.4	201.4
172.5°	205.5	205.4	204.9	204.6	204.9	205.4	205.5	204.1	202.3	201.4	201.4
175°	204.0	204.0	204.0	204.0	204.0	204.0	204.0	203.1	201.9	201.4	201.7
177.5°	203.8	203.7	203.1	202.7	203.1	203.7	203.8	203.0	202.1	201.7	201.9
180°	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7	202.7



TEST NUMBER: P933863

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
0°	962.5	962.5	962.5	962.5	962.5
2.5°	950.6	955.2	957.9	961.6	970.7
5°	914.2	931.5	937.0	950.6	967.0
7.5°	834.1	886.9	901.4	934.2	959.7
10°	756.7	809.5	835.0	912.4	950.6
12.5°	717.5	748.5	765.8	874.1	937.9
15°	692.9	714.8	727.6	823.2	923.4
17.5°	673.8	689.3	698.4	773.1	903.3
20°	661.9	669.3	677.4	736.6	880.5
22.5°	653.8	649.3	655.6	711.2	849.6
25°	648.4	631.0	638.3	691.1	813.1
27.5°	652.9	614.6	617.4	672.9	774.9
30°	653.8	594.6	595.5	653.8	732.1
32.5°	647.5	573.7	574.6	630.1	683.8
35°	631.9	549.1	548.2	602.8	618.3
37.5°	611.0	522.6	522.6	572.8	546.4
40°	585.5	496.3	499.0	533.6	482.6
42.5°	554.5	468.1	471.7	481.7	435.3
45°	520.8	440.7	443.4	407.1	398.8
47.5°	483.5	412.5	413.4	337.8	387.0
50°	438.9	383.3	379.7	289.6	386.1
52.5°	399.7	351.5	340.5	262.2	350.6
55°	361.5	317.8	294.1	241.3	325.0
57.5°	327.8	274.1	251.4	216.7	319.6
60°	296.8	231.3	214.0	190.3	293.2
62.5°	271.4	199.4	195.8	172.1	265.8
65°	244.0	177.6	176.7	156.6	225.8
67.5°	217.6	163.0	162.1	142.0	172.1
70°	189.4	147.5	145.7	126.5	127.4
72.5°	160.3	130.3	128.4	113.8	105.6
75°	131.2	110.2	109.3	99.3	85.6
77.5°	102.9	87.4	89.2	80.1	62.8
80°	73.8	63.7	65.5	57.4	47.3
82.5°	49.2	41.9	43.7	36.4	31.9
85°	27.3	23.7	24.6	19.1	14.6
87.5°	12.8	11.0	11.0	7.2	4.5
90°	6.0	3.8	3.5	2.4	1.4
92.5°	36.9	26.2	23.9	14.7	5.4
95°	90.8	51.1	46.9	30.0	13.0
97.5°	122.3	56.1	52.4	37.5	22.5
100°	133.8	60.4	57.0	43.4	30.0
102.5°	139.0	64.6	61.5	48.9	36.2
105°	142.9	70.9	68.2	57.5	46.8
107.5°	143.6	80.1	77.6	67.6	57.7
110°	142.6	85.3	83.0	74.0	65.0



TEST NUMBER: P933863

CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

**CANDELA DISTRIBUTION (continued):**

	330°	337.5°	340°	350°	360°
112.5°	142.6	91.5	89.3	80.8	72.2
115°	143.9	100.9	98.9	91.1	83.1
117.5°	146.5	110.0	108.2	101.0	93.9
120°	148.8	115.3	113.6	106.9	100.1
122.5°	151.9	121.6	119.8	113.1	106.2
125°	156.1	129.6	128.1	121.8	115.6
127.5°	160.3	137.3	135.8	129.4	123.2
130°	163.4	142.5	140.8	134.1	127.3
132.5°	165.9	146.7	145.0	138.3	131.5
135°	168.6	151.6	150.1	143.9	137.8
137.5°	172.7	157.9	156.3	150.3	144.2
140°	175.2	162.1	160.7	155.1	149.4
142.5°	177.2	165.2	163.9	158.7	153.5
145°	180.0	170.0	168.8	164.3	159.8
147.5°	184.0	176.0	174.9	170.4	166.0
150°	186.1	179.1	178.1	174.1	170.1
152.5°	187.5	181.1	180.4	177.3	174.3
155°	190.4	185.6	185.1	182.8	180.6
157.5°	193.4	190.1	189.5	187.4	185.2
160°	194.8	192.2	191.7	190.1	188.4
162.5°	196.2	194.3	194.0	192.7	191.4
165°	198.3	197.4	197.1	196.0	194.9
167.5°	200.0	199.2	199.0	198.5	198.0
170°	201.3	201.2	201.1	200.6	200.0
172.5°	201.4	201.4	201.4	201.2	201.1
175°	202.2	202.7	202.7	202.7	202.7
177.5°	202.3	202.7	202.7	202.7	202.7
180°	202.7	202.7	202.7	202.7	202.7



TEST NUMBER: P933863  
 CATALOG NUMBER: SQ4-FA-025U-050D-93050-1D-UNV-STD-W-6-4000K

**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	12.32	13.34	13.13	14.18	15.21	15.15	16.17	15.96	17.00	18.03
	3H	12.81	13.73	13.64	14.57	15.63	16.50	17.42	17.33	18.26	19.32
	4H	13.01	13.87	13.85	14.73	15.80	16.95	17.82	17.79	18.67	19.74
	6H	13.14	13.93	13.99	14.79	15.88	17.24	18.04	18.10	18.90	19.98
	8H	13.14	13.90	14.01	14.78	15.86	17.32	18.08	18.19	18.96	20.04
	12H	13.12	13.84	13.99	14.71	15.82	17.37	18.09	18.23	18.96	20.07
4H	2H	13.37	14.24	14.22	15.09	16.16	15.58	16.44	16.42	17.29	18.36
	3H	14.41	15.14	15.27	16.02	17.11	17.09	17.82	17.95	18.70	19.78
	4H	14.70	15.35	15.57	16.23	17.35	17.63	18.28	18.50	19.17	20.28
	6H	14.83	15.40	15.72	16.30	17.42	18.00	18.57	18.89	19.47	20.59
	8H	14.84	15.37	15.73	16.27	17.40	18.11	18.64	19.00	19.54	20.67
	12H	14.82	15.29	15.72	16.21	17.35	18.17	18.65	19.08	19.57	20.70
8H	4H	15.16	15.69	16.05	16.59	17.72	17.77	18.29	18.65	19.19	20.32
	6H	15.43	15.87	16.35	16.81	17.94	18.21	18.65	19.12	19.59	20.72
	8H	15.48	15.86	16.40	16.80	17.94	18.36	18.75	19.29	19.68	20.83
	12H	15.47	15.81	16.40	16.74	17.93	18.46	18.81	19.39	19.73	20.93
12H	4H	15.18	15.65	16.09	16.57	17.71	17.74	18.21	18.65	19.13	20.27
	6H	15.49	15.88	16.42	16.82	17.96	18.21	18.59	19.13	19.53	20.67
	8H	15.57	15.91	16.50	16.84	18.03	18.37	18.72	19.30	19.64	20.84