

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P331361-927

Luminaire Tested: **SA2XXDIP-C675D925U927-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331361-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-C675D925U927-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4752.1 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

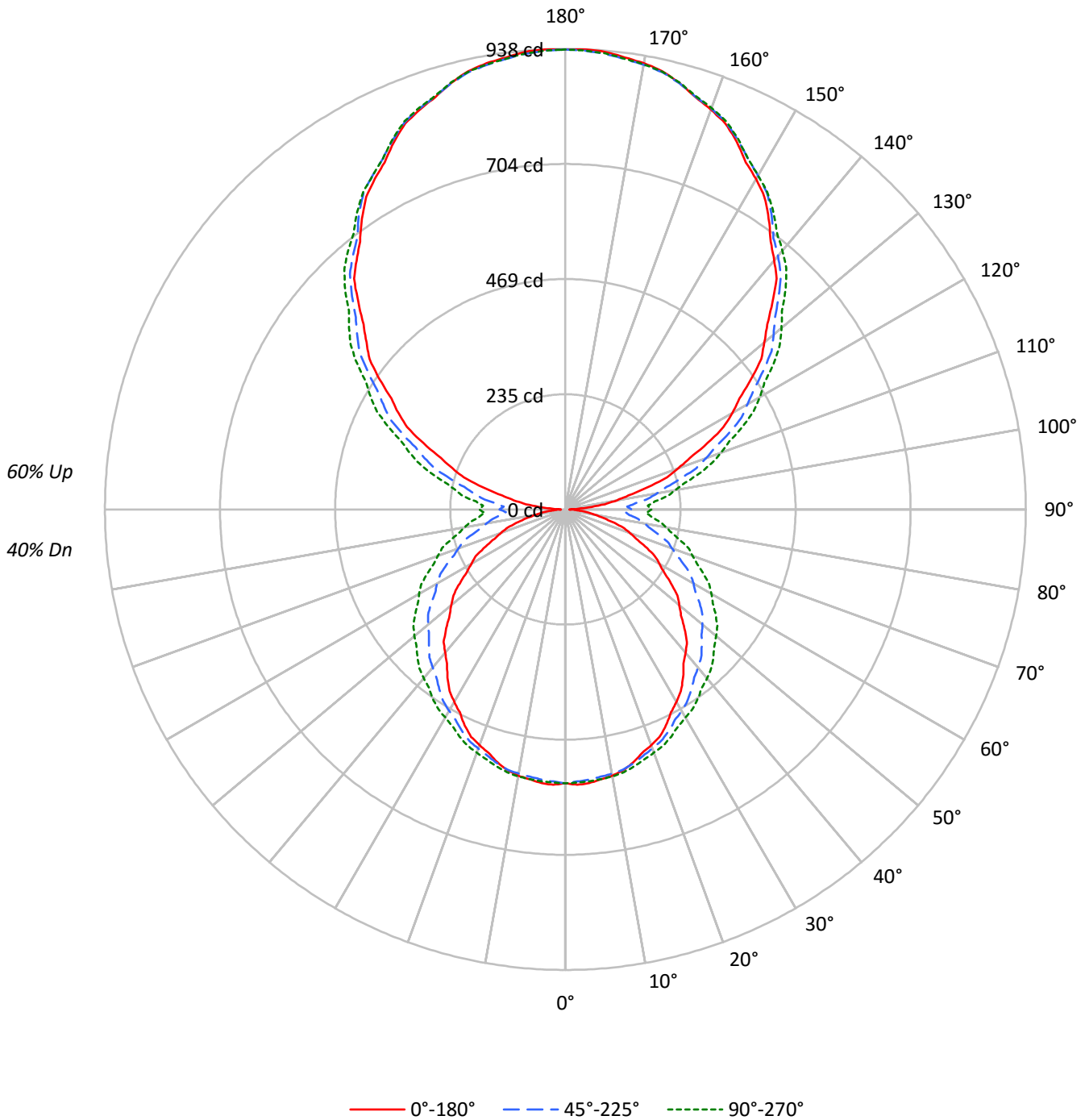
Input Watts (W): 52
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331361-927

CATALOG NUMBER: SA2XXDIP-C675D925U927-4F0-1E-UDD-D1

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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	94	90	85	81	85	81	78	74	66	64	61	52	50	49	39	38	37	31
2	85	77	71	65	77	70	65	60	57	53	50	45	42	40	34	32	30	25
3	78	68	60	54	70	62	55	50	50	45	41	40	36	33	30	27	25	21
4	71	60	51	45	64	54	47	42	44	39	35	35	31	28	26	24	21	17
5	65	53	45	38	58	48	41	35	39	34	30	31	27	24	24	21	18	15
6	59	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	42	34	29	50	39	32	27	32	26	22	25	21	18	19	16	14	11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10
9	47	35	27	22	43	32	25	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9009	9009	9009
5°	9053	8672	8638
10°	8996	8417	8321
15°	8873	8146	7988
20°	8716	7854	7665
25°	8561	7573	7372
30°	8343	7286	7079
35°	8122	7007	6870
40°	7890	6771	6665
45°	7670	6558	6488
50°	7431	6366	6313
55°	7184	6161	6135
60°	6882	5948	5948
65°	6564	5697	5724
70°	6211	5427	5485
75°	5759	5163	5263
80°	5048	4895	5040
85°	4369	4658	4864



TEST NUMBER: P331361-927

CATALOG NUMBER: SA2XXDIP-C675D925U927-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.1
10°-20°	151.6	3.2
20°-30°	229.8	4.8
30°-40°	279.8	5.9
40°-50°	301.1	6.3
50°-60°	292.4	6.2
60°-70°	255.3	5.4
70°-80°	196.5	4.1
80°-90°	135.6	2.9
90°-100°	150.2	3.2
100°-110°	250.7	5.3
110°-120°	359.0	7.6
120°-130°	438.9	9.2
130°-140°	475.4	10.0
140°-150°	457.9	9.6
150°-160°	382.5	8.1
160°-170°	253.7	5.3
170°-180°	88.7	1.9
0°-30°	434.3	9.1
0°-40°	714.1	15.0
0°-60°	1307.5	27.5
0°-90°	1895.0	39.9
90°-120°	759.9	16.0
90°-150°	2132.1	44.9
90°-180°	2857.0	60.1
0°-180°	4752.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	560	557	552	557	556	53
15°	534	535	535	542	542	150
25°	485	491	498	507	510	223
35°	418	432	447	464	471	261
45°	343	365	393	417	426	265
55°	263	293	334	362	374	235
65°	180	220	267	299	310	178
75°	100	145	196	230	242	105
85°	29	79	131	164	176	31
90°	9	66	134	164	176	8
95°	48	94	144	173	182	52
105°	174	201	243	272	282	184
115°	320	334	368	390	398	316
125°	462	470	492	511	518	413
135°	596	605	614	630	635	461
145°	722	728	733	738	739	451
155°	826	828	831	834	832	380
165°	899	898	898	903	900	253
175°	935	933	931	936	932	89
180°	937	937	937	937	937	



TEST NUMBER: P331361-927

CATALOG NUMBER: SA2XXDIP-C675D925U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	561.3	560.8	560.4	559.9	559.5	558.8	557.8	556.7	555.8	554.8	555.5
5°	559.6	559.0	558.6	558.0	557.5	556.7	555.6	554.5	553.4	552.3	553.4
7.5°	554.6	554.2	553.9	553.5	553.2	552.5	551.8	550.9	550.1	549.3	550.6
10°	550.7	550.3	550.0	549.6	549.3	548.8	548.3	547.8	547.2	546.7	548.1
12.5°	544.2	544.3	544.4	544.5	544.5	544.4	544.0	543.6	543.2	542.8	544.2
15°	533.8	534.1	534.5	534.8	535.2	535.4	535.4	535.4	535.4	535.4	536.9
17.5°	520.1	520.9	521.7	522.4	523.2	523.9	524.4	525.0	525.5	526.2	527.8
20°	511.1	512.0	512.9	513.8	514.7	515.5	516.2	517.0	517.7	518.4	520.4
22.5°	501.4	502.4	503.5	504.5	505.6	506.6	507.6	508.6	509.6	510.6	512.6
25°	485.2	486.5	487.7	489.0	490.3	491.7	493.3	495.0	496.5	498.1	500.3
27.5°	465.8	467.9	469.9	472.0	474.0	476.0	477.9	479.8	481.7	483.6	486.3
30°	452.9	455.2	457.6	459.9	462.2	464.5	466.9	469.2	471.6	473.9	476.7
32.5°	438.6	441.2	443.9	446.5	449.2	451.9	454.6	457.3	460.1	462.9	466.2
35°	418.1	421.1	424.2	427.2	430.3	433.6	437.0	440.4	443.8	447.2	451.1
37.5°	395.8	399.3	402.8	406.3	409.9	413.8	418.3	422.7	427.1	431.5	435.9
40°	380.9	384.8	388.8	392.8	396.7	401.1	406.0	410.8	415.7	420.5	425.2
42.5°	366.7	370.6	374.5	378.5	382.5	387.2	392.8	398.4	403.9	409.6	414.6
45°	342.9	347.8	352.6	357.4	362.3	367.9	374.1	380.5	386.7	393.0	398.6
47.5°	319.4	324.7	330.0	335.3	340.6	346.9	354.3	361.6	369.0	376.4	382.2
50°	303.2	308.9	314.4	320.0	325.5	332.4	340.5	348.6	356.6	364.7	370.8
52.5°	287.7	293.6	299.4	305.3	311.2	318.4	326.9	335.4	343.9	352.4	358.7
55°	262.8	269.3	275.8	282.3	288.7	296.6	305.9	315.3	324.6	334.0	340.5
57.5°	238.2	245.6	252.9	260.2	267.4	275.8	285.3	294.9	304.4	313.9	320.9
60°	220.8	228.5	236.2	244.0	251.7	260.7	270.9	281.1	291.4	301.7	308.5
62.5°	205.3	213.3	221.3	229.3	237.3	246.4	256.7	266.9	277.2	287.4	294.7
65°	179.5	188.3	197.2	206.0	214.8	224.4	235.0	245.7	256.3	266.9	274.3
67.5°	155.9	165.1	174.4	183.5	192.7	202.7	213.6	224.4	235.3	246.1	253.6
70°	139.1	148.5	157.8	167.2	176.5	186.7	197.9	209.0	220.1	231.3	239.0
72.5°	123.6	133.2	142.8	152.5	162.1	172.5	183.9	195.1	206.4	217.7	225.3
75°	99.5	109.6	119.6	129.7	139.7	150.5	162.0	173.5	185.0	196.5	204.2
77.5°	76.2	86.7	97.3	107.7	118.3	129.4	141.1	152.8	164.5	176.1	183.9
80°	60.7	71.6	82.5	93.6	104.5	115.8	127.5	139.2	150.8	162.6	170.1
82.5°	47.7	58.5	69.3	80.2	91.0	102.3	114.2	126.0	137.8	149.6	157.2
85°	29.2	40.2	51.4	62.5	73.7	85.0	96.5	108.0	119.5	131.0	138.6
87.5°	16.0	27.2	38.3	49.4	60.5	72.2	84.5	96.8	109.1	121.4	128.6
90°	8.9	21.4	33.9	46.5	59.0	73.0	88.3	103.7	119.1	134.4	141.2
92.5°	21.5	32.8	44.0	55.3	66.5	78.1	90.2	102.1	114.1	126.0	133.2
95°	47.6	57.8	68.0	78.2	88.4	99.0	110.2	121.4	132.5	143.6	150.4
97.5°	80.8	89.8	98.9	108.0	117.0	127.1	138.1	149.1	160.1	171.1	177.8
100°	106.1	114.2	122.2	130.2	138.3	147.6	158.2	168.8	179.4	190.0	196.6
102.5°	132.0	139.2	146.4	153.6	160.7	169.6	180.1	190.5	200.9	211.4	218.0
105°	174.0	179.7	185.5	191.2	196.9	204.7	214.4	224.1	233.8	243.4	250.1
107.5°	217.1	222.1	227.0	232.0	236.9	243.9	252.9	261.8	270.8	279.7	285.9
110°	244.4	249.0	253.7	258.3	262.9	269.7	278.5	287.3	296.1	304.9	310.6



TEST NUMBER: P331361-927

CATALOG NUMBER: SA2XXDIP-C675D925U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	274.7	278.8	282.9	286.9	291.0	297.1	305.4	313.6	321.9	330.1	335.4
115°	319.5	322.5	325.5	328.5	331.6	337.0	344.7	352.4	360.2	367.9	373.1
117.5°	363.2	365.9	368.6	371.4	374.1	378.7	385.2	391.7	398.1	404.6	409.5
120°	393.0	395.1	397.2	399.3	401.5	405.4	411.2	417.0	422.8	428.6	433.6
122.5°	420.2	422.2	424.1	426.1	428.0	431.9	437.7	443.5	449.2	455.0	459.5
125°	461.7	463.3	464.9	466.4	468.0	471.4	476.7	481.9	487.1	492.3	496.7
127.5°	503.0	504.8	506.6	508.4	510.2	513.2	517.2	521.2	525.2	529.2	533.1
130°	528.9	531.0	533.1	535.2	537.3	540.1	543.5	546.9	550.4	553.8	557.8
132.5°	558.0	559.7	561.3	563.1	564.7	567.0	570.1	573.1	576.0	579.0	582.4
135°	596.1	598.0	600.0	601.9	603.8	605.9	608.0	610.1	612.3	614.5	618.1
137.5°	637.1	638.6	640.2	641.7	643.3	644.6	645.9	647.1	648.4	649.6	652.8
140°	661.7	663.1	664.5	665.9	667.3	668.7	669.9	671.1	672.3	673.6	676.4
142.5°	687.0	688.4	689.8	691.3	692.6	693.6	694.3	695.0	695.7	696.3	698.8
145°	722.5	723.8	725.0	726.3	727.5	728.6	729.7	730.7	731.8	732.8	734.1
147.5°	754.9	756.5	758.0	759.4	760.9	762.0	762.7	763.3	764.1	764.8	765.3
150°	777.1	778.2	779.2	780.3	781.3	782.2	782.9	783.6	784.3	785.1	785.5
152.5°	796.7	797.8	798.8	799.9	801.0	801.9	802.7	803.6	804.4	805.3	806.0
155°	826.2	826.6	827.2	827.8	828.2	828.8	829.3	829.8	830.4	830.8	831.8
157.5°	851.3	851.6	852.0	852.3	852.7	853.0	853.3	853.7	854.0	854.3	855.5
160°	866.5	866.8	867.1	867.5	867.8	868.2	868.3	868.5	868.6	868.8	869.9
162.5°	880.4	880.4	880.5	880.6	880.7	880.7	881.0	881.1	881.1	881.3	881.5
165°	898.9	898.7	898.5	898.3	898.2	898.1	898.1	898.1	898.1	898.1	899.3
167.5°	914.3	913.9	913.3	912.8	912.3	912.0	912.0	911.9	911.9	911.8	913.1
170°	922.6	922.0	921.5	921.0	920.4	920.1	920.0	919.8	919.6	919.4	920.7
172.5°	928.3	927.7	927.2	926.7	926.1	925.8	925.7	925.4	925.3	925.1	926.4
175°	935.3	934.7	934.1	933.7	933.1	932.7	932.3	932.0	931.6	931.3	932.5
177.5°	938.1	937.6	937.2	936.8	936.4	936.0	935.7	935.5	935.2	934.9	935.7
180°	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8



TEST NUMBER: P331361-927

CATALOG NUMBER: SA2XXDIP-C675D925U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
2.5°	556.2	556.9	557.6	557.9	557.5	557.3	557.0	556.7
5°	554.5	555.6	556.7	557.1	556.9	556.7	556.6	556.3
7.5°	551.8	553.2	554.4	555.0	554.8	554.6	554.4	554.3
10°	549.5	551.0	552.5	553.0	552.9	552.7	552.5	552.3
12.5°	545.7	547.1	548.6	549.1	549.0	548.8	548.7	548.4
15°	538.6	540.2	541.9	542.6	542.4	542.2	542.0	541.9
17.5°	529.5	531.2	532.9	533.8	533.8	533.8	533.8	533.8
20°	522.4	524.3	526.2	527.3	527.3	527.3	527.3	527.3
22.5°	514.6	516.6	518.5	519.7	519.9	520.2	520.5	520.8
25°	502.5	504.6	506.8	508.1	508.7	509.2	509.8	510.3
27.5°	489.1	491.8	494.6	496.1	496.5	496.9	497.3	497.6
30°	479.7	482.5	485.4	487.1	487.7	488.2	488.7	489.3
32.5°	469.5	472.9	476.1	478.2	479.3	480.2	481.2	482.1
35°	455.1	459.1	463.0	465.6	466.9	468.2	469.4	470.6
37.5°	440.3	444.7	449.1	451.9	453.3	454.6	455.9	457.2
40°	429.8	434.5	439.2	442.4	443.9	445.6	447.2	448.9
42.5°	419.7	424.8	429.9	433.3	434.9	436.6	438.2	439.7
45°	404.2	409.7	415.3	419.0	420.8	422.6	424.4	426.2
47.5°	388.0	393.9	399.7	403.5	405.5	407.5	409.5	411.5
50°	376.9	383.0	389.2	393.2	395.2	397.2	399.1	401.1
52.5°	365.0	371.2	377.5	381.7	383.7	385.9	388.0	390.1
55°	346.9	353.4	359.9	364.2	366.6	368.9	371.3	373.6
57.5°	327.9	334.9	341.8	346.5	348.9	351.3	353.6	356.0
60°	315.3	322.1	329.0	333.7	336.1	338.7	341.2	343.7
62.5°	301.9	309.2	316.5	321.3	323.6	326.0	328.4	330.7
65°	281.6	289.0	296.4	301.2	303.6	305.9	308.2	310.5
67.5°	261.0	268.5	275.9	280.9	283.3	285.7	288.2	290.7
70°	246.8	254.4	262.2	267.1	269.3	271.5	273.6	275.8
72.5°	232.9	240.4	248.0	253.1	255.7	258.3	260.9	263.5
75°	212.0	219.7	227.4	232.4	234.8	237.1	239.5	241.8
77.5°	191.5	199.2	206.9	212.0	214.5	217.1	219.5	222.0
80°	177.6	185.2	192.7	197.8	200.3	202.8	205.3	207.9
82.5°	164.7	172.2	179.8	184.7	187.1	189.5	191.9	194.2
85°	146.1	153.7	161.2	166.2	168.7	171.3	173.8	176.3
87.5°	135.9	143.1	150.4	155.2	157.5	159.9	162.2	164.5
90°	148.1	155.0	161.8	166.4	168.7	171.0	173.3	175.7
92.5°	140.3	147.4	154.6	159.1	161.4	163.6	165.7	167.9
95°	157.2	164.1	170.9	175.2	177.1	178.9	180.6	182.4
97.5°	184.4	191.1	197.7	202.1	204.1	206.3	208.3	210.4
100°	203.3	209.9	216.6	220.8	222.6	224.4	226.2	228.0
102.5°	224.7	231.3	238.0	242.2	244.0	245.8	247.6	249.4
105°	256.7	263.4	270.1	274.3	276.3	278.3	280.3	282.3
107.5°	292.1	298.3	304.4	308.1	309.3	310.4	311.6	312.8
110°	316.4	322.2	327.9	331.5	333.0	334.4	335.9	337.3



TEST NUMBER: P331361-927

CATALOG NUMBER: SA2XXDIP-C675D925U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	340.7	346.1	351.4	354.9	356.5	358.1	359.7	361.2
115°	378.3	383.6	388.8	392.1	393.6	395.0	396.5	397.9
117.5°	414.4	419.3	424.2	427.3	428.6	429.9	431.2	432.5
120°	438.6	443.6	448.7	451.9	453.4	454.8	456.3	457.7
122.5°	464.0	468.4	472.9	475.8	477.1	478.4	479.7	481.0
125°	501.0	505.3	509.6	512.5	514.0	515.4	516.8	518.3
127.5°	536.9	540.7	544.5	546.9	548.0	549.0	550.0	551.0
130°	561.7	565.7	569.7	572.0	572.7	573.5	574.2	574.9
132.5°	585.8	589.2	592.6	594.7	595.6	596.5	597.4	598.3
135°	621.6	625.3	628.8	631.1	632.0	633.0	633.8	634.8
137.5°	655.9	659.1	662.3	664.1	664.6	665.2	665.7	666.2
140°	679.4	682.2	685.1	686.7	687.1	687.5	687.9	688.2
142.5°	701.2	703.6	706.1	707.4	707.7	707.9	708.1	708.4
145°	735.4	736.7	737.8	738.6	738.8	738.9	739.2	739.3
147.5°	765.9	766.4	766.9	767.1	766.8	766.6	766.4	766.1
150°	786.1	786.6	787.1	787.1	786.6	786.1	785.5	785.1
152.5°	806.6	807.2	807.9	807.9	807.2	806.6	806.0	805.3
155°	832.7	833.5	834.4	834.6	834.0	833.5	833.0	832.4
157.5°	856.7	857.9	859.0	859.2	858.4	857.5	856.7	855.9
160°	870.9	872.0	873.1	873.2	872.5	871.8	871.1	870.4
162.5°	883.8	885.0	886.2	886.5	885.6	884.7	883.9	883.0
165°	900.6	901.7	903.0	903.2	902.3	901.4	900.6	899.7
167.5°	914.3	915.5	916.7	916.9	916.0	915.0	914.2	913.2
170°	921.9	923.1	924.3	924.4	923.4	922.3	921.2	920.2
172.5°	927.6	928.8	930.0	930.1	929.1	928.0	926.9	925.9
175°	933.7	934.9	936.2	936.3	935.3	934.1	933.1	932.1
177.5°	936.6	937.5	938.3	938.3	937.5	936.6	935.7	934.9
180°	936.8	936.8	936.8	936.8	936.8	936.8	936.8	936.8

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