

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: P331363-830

Luminaire Tested: **S122DIP-S675D925U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331363-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S675D925U830-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 675 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6035.1 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.3
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

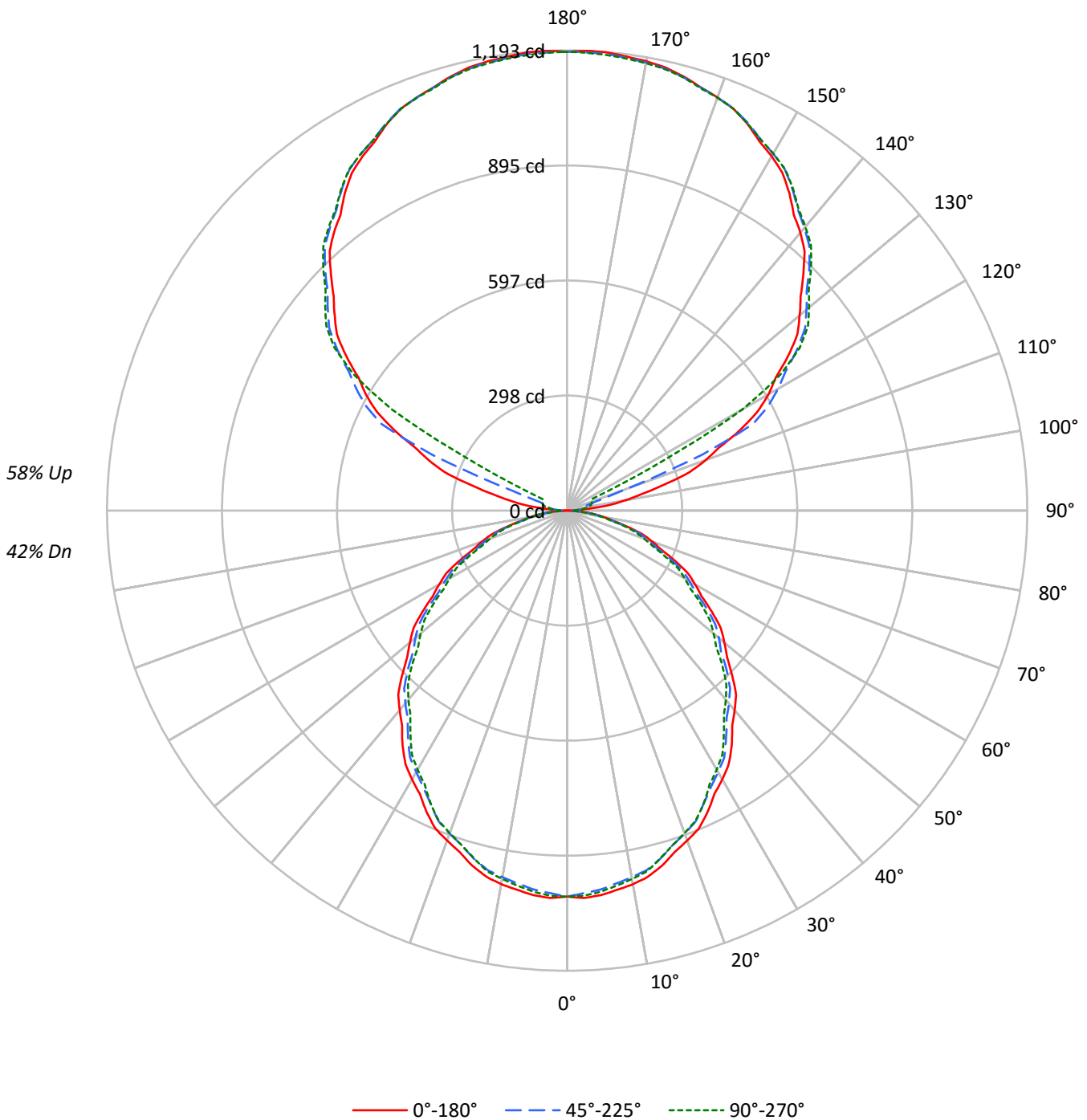
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																				
0	105	105	105	105	96	96	96	96	79	79	79		63	63	63		49	49	49	42
1	96	92	88	84	88	84	81	78	69	67	65		56	54	53		43	42	41	36
2	87	80	74	69	80	73	68	64	61	57	54		49	46	44		38	36	35	30
3	80	70	63	57	73	65	58	53	53	49	45		43	40	37		34	32	30	25
4	73	62	54	48	66	57	50	45	47	42	38		39	35	32		30	28	26	22
5	67	55	47	41	61	51	44	39	42	37	33		35	31	28		27	24	22	19
6	62	50	42	36	56	46	39	34	38	33	29		31	27	24		25	22	20	17
7	57	45	37	31	52	41	34	29	35	29	25		28	24	21		22	20	17	15
8	53	41	33	28	48	37	31	26	32	26	22		26	22	19		21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20		24	20	17		19	16	14	12
10	46	34	27	22	42	31	25	21	27	22	18		22	18	15		18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16157	16157	16157
5°	16219	15985	16078
10°	16123	15823	15901
15°	15921	15616	15600
20°	15639	15309	15292
25°	15358	14931	14931
30°	14997	14585	14458
35°	14661	14168	13957
40°	14235	13748	13487
45°	13819	13337	13006
50°	13366	12906	12446
55°	12892	12405	11944
60°	12368	11806	11370
65°	11801	11213	10697
70°	11084	10494	9994
75°	10081	9669	9426
80°	8945	8675	8229
85°	7317	6947	6224



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	1.6
10°-20°	264.8	4.4
20°-30°	389.2	6.4
30°-40°	452.1	7.5
40°-50°	451.6	7.5
50°-60°	393.8	6.5
60°-70°	291.2	4.8
70°-80°	164.9	2.7
80°-90°	47.3	0.8
90°-100°	39.7	0.7
100°-110°	145.5	2.4
110°-120°	389.0	6.4
120°-130°	642.1	10.6
130°-140°	682.9	11.3
140°-150°	634.7	10.5
150°-160°	510.3	8.5
160°-170°	328.8	5.4
170°-180°	113.2	1.9
0°-30°	748.0	12.4
0°-40°	1200.1	19.9
0°-60°	2045.4	33.9
0°-90°	2548.8	42.2
90°-120°	574.2	9.5
90°-150°	2533.9	42.0
90°-180°	3486.0	57.8
0°-180°	6035.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	1001	996	986	993	992	95
15°	952	946	934	938	933	268
25°	862	854	838	840	838	396
35°	744	734	719	713	708	464
45°	605	598	584	574	570	467
55°	458	452	441	430	424	409
65°	309	303	294	285	280	305
75°	162	160	155	150	151	173
85°	40	38	38	35	34	45
90°	1	10	17	21	23	5
95°	56	29	34	38	37	68
105°	262	273	52	62	65	280
115°	495	510	531	151	71	487
125°	700	711	727	733	736	624
135°	866	879	888	896	894	669
145°	1005	1005	1018	1024	1020	628
155°	1106	1099	1109	1113	1107	509
165°	1166	1161	1163	1168	1163	329
175°	1192	1187	1188	1193	1185	113
180°	1190	1190	1190	1190	1190	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7
2.5°	1005.3	1004.5	1003.6	1002.8	1001.9	1000.5	998.6	996.7	994.9	993.0	994.7
5°	1000.7	999.8	999.0	998.2	997.3	995.7	993.3	991.0	988.6	986.3	988.0
7.5°	991.8	990.5	989.2	987.9	986.6	984.7	982.3	979.9	977.5	975.1	976.8
10°	983.4	981.8	980.3	978.8	977.4	975.3	972.8	970.3	967.6	965.1	966.8
12.5°	971.9	970.5	969.1	967.8	966.5	964.6	962.0	959.4	956.9	954.3	955.5
15°	952.5	951.3	950.0	948.8	947.4	945.4	942.6	939.8	937.1	934.2	935.2
17.5°	927.9	926.6	925.4	924.1	922.8	920.8	917.9	915.1	912.3	909.5	910.5
20°	910.2	909.0	907.7	906.3	905.1	903.0	899.9	897.0	894.0	891.0	891.6
22.5°	892.5	890.7	888.9	887.1	885.3	883.1	880.2	877.4	874.6	871.8	871.9
25°	862.1	860.4	858.8	857.0	855.3	852.6	848.9	845.4	841.7	838.1	838.5
27.5°	827.5	826.0	824.4	822.8	821.3	819.2	816.2	813.4	810.5	807.7	807.0
30°	804.4	802.7	801.0	799.3	797.6	795.1	791.9	788.7	785.5	782.3	781.7
32.5°	779.8	778.4	777.0	775.6	774.3	771.9	768.5	765.2	761.8	758.4	757.2
35°	743.8	741.7	739.5	737.4	735.2	732.4	729.1	725.6	722.2	718.8	717.5
37.5°	703.1	701.3	699.4	697.5	695.7	693.0	689.6	686.2	682.8	679.3	677.7
40°	675.4	673.7	672.0	670.3	668.6	666.1	662.6	659.2	655.8	652.3	650.4
42.5°	648.6	646.8	645.1	643.4	641.7	639.1	635.7	632.3	628.9	625.5	623.3
45°	605.2	603.7	602.2	600.8	599.3	596.9	593.7	590.5	587.3	584.1	581.7
47.5°	562.1	560.7	559.3	557.9	556.5	554.1	550.7	547.4	544.1	540.7	538.3
50°	532.1	531.0	530.0	528.9	527.8	525.8	522.8	519.8	516.8	513.8	510.9
52.5°	502.8	501.4	500.0	498.6	497.2	495.1	492.3	489.5	486.6	483.8	481.4
55°	458.0	456.8	455.4	454.1	452.9	450.9	448.4	445.8	443.3	440.7	438.1
57.5°	412.9	412.0	410.9	409.9	408.9	407.0	404.2	401.3	398.5	395.7	393.1
60°	383.0	382.1	381.3	380.4	379.6	377.6	374.7	371.6	368.6	365.6	363.3
62.5°	353.7	352.3	351.0	349.6	348.3	346.4	344.1	341.8	339.5	337.1	335.0
65°	308.9	307.6	306.3	305.0	303.7	302.0	299.9	297.7	295.6	293.5	291.5
67.5°	263.3	262.2	261.2	260.1	259.1	257.7	255.7	253.8	251.9	250.0	248.5
70°	234.8	233.9	233.1	232.2	231.4	230.0	228.0	226.1	224.2	222.3	220.7
72.5°	205.6	204.6	203.8	202.9	202.1	201.0	199.8	198.6	197.4	196.0	194.6
75°	161.6	161.2	160.8	160.3	159.9	159.2	158.2	157.0	156.0	155.0	153.6
77.5°	122.4	121.7	120.9	120.2	119.5	118.9	118.5	118.0	117.6	117.2	116.6
80°	96.2	96.0	95.8	95.6	95.4	95.0	94.6	94.2	93.8	93.3	92.7
82.5°	71.6	71.5	71.5	71.4	71.4	71.3	71.0	70.8	70.5	70.2	69.5
85°	39.5	39.2	39.0	38.8	38.5	38.4	38.2	38.0	37.7	37.5	36.9
87.5°	14.0	14.1	14.1	14.2	14.3	14.3	14.3	14.3	14.2	14.2	13.9
90°	0.8	2.9	5.1	7.2	9.2	11.1	12.6	14.1	15.6	17.2	18.2
92.5°	17.3	17.2	17.0	16.8	16.6	16.9	17.7	18.5	19.2	20.0	20.5
95°	56.0	49.7	43.4	37.0	30.7	28.2	29.6	30.9	32.2	33.6	34.5
97.5°	111.0	93.2	75.5	57.7	39.9	32.5	35.6	38.7	41.8	45.0	45.7
100°	152.4	126.1	99.9	73.7	47.5	36.1	39.3	42.6	45.8	49.1	50.6
102.5°	197.8	192.3	186.7	181.2	175.6	159.3	132.1	104.8	77.7	50.4	52.4
105°	261.6	267.4	273.1	278.9	284.6	261.4	209.2	156.9	104.7	52.5	54.6
107.5°	334.5	339.1	343.7	348.4	353.1	324.0	261.4	198.8	136.1	73.5	71.4
110°	381.4	385.4	389.4	393.4	397.4	371.7	316.5	261.2	205.9	150.6	131.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	425.4	429.0	432.5	436.1	439.6	434.6	420.9	407.3	393.6	379.9	310.2
115°	494.9	498.2	501.4	504.7	507.9	512.0	516.8	521.6	526.3	531.1	442.5
117.5°	557.1	560.7	564.4	568.1	571.7	575.1	578.4	581.7	585.0	588.2	566.8
120°	602.6	605.4	608.3	611.1	614.1	617.2	620.7	624.1	627.5	630.9	633.3
122.5°	641.1	644.1	647.1	650.2	653.2	656.6	660.3	664.1	667.9	671.7	673.0
125°	699.8	702.3	704.8	707.3	709.8	712.8	716.5	720.1	723.8	727.4	728.8
127.5°	753.0	755.8	758.6	761.3	764.0	766.8	769.5	772.2	775.0	777.7	779.6
130°	786.8	789.9	792.9	796.0	799.0	801.6	803.7	805.8	807.9	810.0	812.1
132.5°	821.2	823.8	826.4	829.1	831.6	834.0	836.1	838.2	840.3	842.4	844.2
135°	866.0	869.0	872.1	875.2	878.3	880.6	882.3	884.1	885.8	887.5	889.4
137.5°	911.3	913.4	915.6	917.7	919.8	921.9	923.8	925.8	927.7	929.7	931.5
140°	940.8	942.4	944.0	945.5	947.0	948.9	950.9	953.0	955.2	957.2	958.9
142.5°	965.6	967.0	968.5	969.8	971.2	973.1	975.4	977.9	980.3	982.7	984.3
145°	1004.6	1004.4	1004.2	1004.0	1003.8	1005.3	1008.6	1011.8	1015.1	1018.3	1019.6
147.5°	1038.5	1037.7	1037.1	1036.3	1035.6	1036.8	1040.0	1043.3	1046.5	1049.7	1050.7
150°	1060.5	1059.2	1057.8	1056.5	1055.2	1056.0	1059.1	1062.2	1065.3	1068.3	1069.4
152.5°	1079.1	1077.6	1076.1	1074.7	1073.2	1073.8	1076.8	1079.7	1082.6	1085.5	1086.7
155°	1106.2	1104.5	1102.7	1101.0	1099.3	1099.6	1101.8	1104.2	1106.5	1108.7	1109.8
157.5°	1127.3	1125.9	1124.5	1122.9	1121.5	1121.6	1123.2	1124.8	1126.4	1128.0	1129.4
160°	1139.7	1138.6	1137.5	1136.2	1135.1	1135.1	1136.2	1137.5	1138.6	1139.7	1140.9
162.5°	1150.8	1149.6	1148.5	1147.3	1146.1	1146.0	1147.1	1148.0	1149.1	1150.1	1151.3
165°	1165.5	1164.4	1163.3	1162.1	1160.9	1160.6	1161.2	1161.8	1162.4	1163.0	1164.3
167.5°	1176.6	1175.4	1174.3	1173.1	1172.0	1171.7	1172.2	1172.7	1173.3	1173.8	1175.2
170°	1182.8	1181.6	1180.4	1179.3	1178.2	1177.8	1178.2	1178.6	1178.9	1179.3	1180.6
172.5°	1186.8	1185.7	1184.6	1183.5	1182.3	1181.9	1182.3	1182.7	1183.1	1183.5	1184.8
175°	1192.2	1190.9	1189.6	1188.2	1186.8	1186.4	1186.8	1187.1	1187.5	1187.9	1189.3
177.5°	1193.1	1192.0	1191.0	1189.9	1188.8	1188.4	1188.5	1188.6	1188.8	1188.9	1190.1
180°	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7	1000.7
2.5°	996.4	998.2	999.8	1000.5	1000.1	999.8	999.5	999.2
5°	989.7	991.4	993.1	993.7	993.3	992.9	992.5	992.0
7.5°	978.5	980.2	981.9	982.5	982.0	981.7	981.2	980.7
10°	968.5	970.3	971.9	972.4	971.9	971.2	970.5	969.9
12.5°	956.7	957.9	959.1	959.4	958.9	958.6	958.1	957.6
15°	936.0	936.9	937.7	937.6	936.5	935.5	934.4	933.3
17.5°	911.4	912.4	913.4	913.4	912.4	911.3	910.3	909.3
20°	892.3	893.0	893.5	893.4	892.6	891.7	890.9	890.0
22.5°	872.0	872.1	872.2	872.0	871.6	871.0	870.5	870.1
25°	839.0	839.3	839.8	839.8	839.3	839.0	838.5	838.1
27.5°	806.3	805.8	805.1	804.3	803.2	802.2	801.2	800.1
30°	781.0	780.3	779.7	778.9	778.1	777.2	776.4	775.5
32.5°	756.1	755.0	753.8	752.8	752.0	751.1	750.2	749.3
35°	716.2	714.9	713.6	712.5	711.4	710.3	709.3	708.1
37.5°	676.2	674.6	673.0	671.7	670.6	669.6	668.6	667.6
40°	648.6	646.6	644.7	643.3	642.4	641.6	640.7	639.9
42.5°	621.2	619.2	617.1	615.4	614.2	613.0	611.8	610.6
45°	579.4	577.0	574.7	573.1	572.2	571.4	570.5	569.6
47.5°	535.8	533.3	530.8	529.0	527.7	526.5	525.3	524.1
50°	507.8	504.8	501.8	499.8	498.7	497.7	496.6	495.5
52.5°	478.8	476.4	473.9	471.9	470.5	469.1	467.7	466.3
55°	435.5	433.0	430.5	428.6	427.5	426.5	425.4	424.3
57.5°	390.6	388.0	385.6	383.9	383.0	382.3	381.4	380.6
60°	360.9	358.5	356.2	354.8	354.1	353.5	352.8	352.1
62.5°	332.8	330.6	328.5	327.0	326.1	325.3	324.5	323.7
65°	289.6	287.7	285.8	284.3	283.2	282.1	281.1	280.0
67.5°	246.9	245.5	244.0	242.8	242.0	241.1	240.3	239.4
70°	219.2	217.8	216.3	215.1	214.2	213.4	212.5	211.7
72.5°	193.1	191.6	190.1	189.0	188.3	187.7	187.0	186.2
75°	152.3	151.1	149.8	149.4	149.8	150.2	150.6	151.1
77.5°	115.9	115.3	114.6	114.0	113.4	112.8	112.3	111.6
80°	92.1	91.4	90.8	90.2	89.8	89.4	89.0	88.5
82.5°	68.6	67.8	67.0	66.5	66.4	66.4	66.3	66.2
85°	36.3	35.6	35.0	34.5	34.3	34.1	33.9	33.6
87.5°	13.6	13.3	12.9	12.7	12.6	12.5	12.4	12.3
90°	19.1	20.1	21.0	21.7	22.1	22.4	22.9	23.3
92.5°	20.9	21.5	22.0	22.3	22.5	22.8	23.0	23.3
95°	35.4	36.5	37.4	37.8	37.6	37.4	37.2	37.0
97.5°	46.5	47.2	48.0	48.4	48.7	48.9	49.2	49.4
100°	52.1	53.6	55.2	56.2	56.6	56.9	57.3	57.7
102.5°	54.4	56.5	58.4	59.7	60.2	60.7	61.3	61.8
105°	56.7	58.8	60.9	62.4	63.2	63.9	64.7	65.4
107.5°	69.2	67.1	64.9	64.3	65.0	65.8	66.5	67.3
110°	112.4	93.2	74.1	64.9	65.7	66.4	67.2	68.1



TEST NUMBER: P331363-830

CATALOG NUMBER: S122DIP-S675D925U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	240.4	170.6	100.9	66.3	66.8	67.5	68.1	68.7
115°	354.0	265.4	176.8	125.6	111.9	98.1	84.4	70.6
117.5°	545.4	524.1	502.6	469.2	424.0	378.7	333.5	288.2
120°	635.6	637.9	640.2	628.4	602.6	576.7	550.9	525.1
122.5°	674.4	675.7	677.1	675.3	670.3	665.2	660.3	655.3
125°	730.1	731.4	732.7	733.7	734.2	734.8	735.5	736.0
127.5°	781.6	783.5	785.5	786.5	786.6	786.7	786.8	786.9
130°	814.3	816.3	818.4	819.4	819.3	819.0	818.8	818.6
132.5°	846.0	847.8	849.6	850.4	850.2	850.0	849.8	849.6
135°	891.4	893.2	895.1	895.9	895.5	895.1	894.8	894.4
137.5°	933.4	935.3	937.2	937.8	937.2	936.5	935.9	935.2
140°	960.6	962.4	964.1	964.5	963.6	962.6	961.7	960.6
142.5°	985.8	987.4	989.0	989.3	988.4	987.4	986.5	985.4
145°	1021.1	1022.4	1023.7	1023.9	1022.9	1022.0	1021.1	1020.1
147.5°	1051.7	1052.6	1053.7	1053.8	1052.9	1052.2	1051.3	1050.6
150°	1070.5	1071.8	1072.9	1073.0	1072.0	1071.0	1070.1	1069.1
152.5°	1087.8	1088.9	1090.1	1090.1	1088.7	1087.5	1086.3	1085.0
155°	1111.1	1112.2	1113.3	1113.1	1111.6	1110.0	1108.5	1107.0
157.5°	1130.6	1131.9	1133.2	1133.1	1131.6	1130.1	1128.6	1127.2
160°	1142.0	1143.2	1144.3	1144.2	1142.8	1141.5	1140.2	1138.9
162.5°	1152.6	1154.0	1155.3	1155.1	1153.5	1151.8	1150.2	1148.5
165°	1165.6	1167.0	1168.3	1168.3	1167.0	1165.6	1164.3	1163.0
167.5°	1176.5	1177.8	1179.2	1178.9	1177.2	1175.5	1173.8	1172.1
170°	1182.0	1183.4	1184.7	1184.5	1182.8	1181.0	1179.3	1177.6
172.5°	1186.1	1187.5	1188.8	1188.6	1186.8	1185.2	1183.5	1181.8
175°	1190.6	1191.9	1193.3	1193.0	1191.1	1189.2	1187.2	1185.3
177.5°	1191.1	1192.2	1193.3	1193.1	1191.8	1190.3	1188.9	1187.6
180°	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7	1189.7

(END OF REPORT)