

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: P331979-830

Luminaire Tested: **S123DIP-S775D805U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331979-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D805U830-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6014.1 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

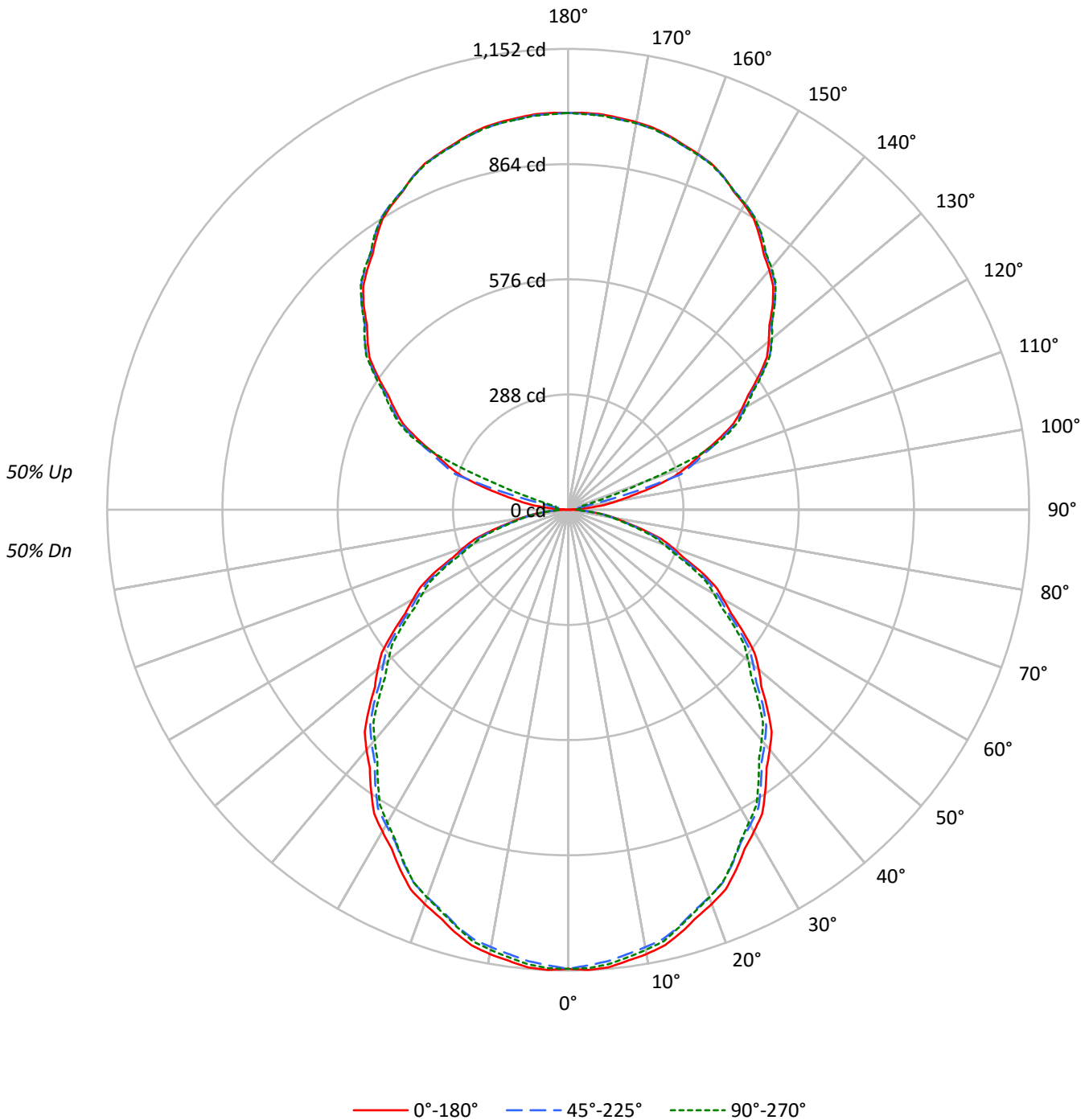
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47	42				
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	40	35				
3	81	72	64	58	74	66	60	55	56	51	47	47	43	40	38	36	34	30				
4	74	63	55	49	68	59	52	46	50	45	40	42	38	35	34	31	29	25				
5	68	56	48	42	62	52	45	40	45	39	35	38	33	30	31	28	25	22				
6	63	51	42	37	58	47	40	34	40	35	30	34	30	26	28	25	22	19				
7	58	46	38	32	53	42	35	30	36	31	27	31	26	23	26	22	20	17				
8	54	41	34	28	49	39	32	27	33	28	24	28	24	21	23	20	18	15				
9	50	38	30	25	46	35	29	24	30	25	21	26	22	19	22	18	16	14				
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	14	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12355	12355	12355
5°	12413	12241	12327
10°	12329	12136	12211
15°	12186	11999	12021
20°	12016	11802	11813
25°	11792	11569	11545
30°	11543	11309	11225
35°	11284	11037	10893
40°	11011	10732	10568
45°	10712	10456	10201
50°	10412	10114	9833
55°	10021	9760	9466
60°	9623	9347	9052
65°	9276	8899	8621
70°	8759	8387	8013
75°	8006	7719	7390
80°	7221	6912	6856
85°	6336	6101	5854



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	1.8
10°-20°	305.3	5.1
20°-30°	451.0	7.5
30°-40°	526.8	8.8
40°-50°	529.6	8.8
50°-60°	465.2	7.7
60°-70°	346.6	5.8
70°-80°	197.5	3.3
80°-90°	59.5	1.0
90°-100°	36.1	0.6
100°-110°	171.9	2.9
110°-120°	412.8	6.9
120°-130°	525.7	8.7
130°-140°	561.7	9.3
140°-150°	525.2	8.7
150°-160°	423.7	7.0
160°-170°	273.4	4.5
170°-180°	94.2	1.6
0°-30°	864.4	14.4
0°-40°	1391.1	23.1
0°-60°	2385.9	39.7
0°-90°	2989.4	49.7
90°-120°	620.7	10.3
90°-150°	2233.3	37.1
90°-180°	3025.0	50.3
0°-180°	6014.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1148	1148	1148	1148	1148	
5°	1149	1143	1133	1142	1141	109
15°	1094	1089	1077	1084	1079	308
25°	993	987	974	975	972	457
35°	859	852	840	834	829	537
45°	704	699	687	675	670	543
55°	534	532	520	510	504	478
65°	364	359	349	342	338	359
75°	192	189	186	181	178	206
85°	51	50	49	48	47	56
90°	1	8	18	21	22	5
95°	45	17	23	28	28	56
105°	220	224	161	38	32	233
115°	412	416	423	430	433	406
125°	581	586	590	591	592	518
135°	723	727	730	732	730	556
145°	834	839	841	842	842	522
155°	919	918	918	921	917	423
165°	969	967	966	971	967	274
175°	992	988	989	993	988	94
180°	992	992	992	992	992	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8
2.5°	1151.7	1151.0	1150.4	1149.6	1149.0	1147.6	1145.7	1143.8	1141.8	1139.9	1141.6
5°	1148.8	1147.6	1146.6	1145.5	1144.3	1142.6	1140.2	1137.8	1135.4	1132.9	1135.2
7.5°	1137.6	1136.4	1135.3	1134.3	1133.1	1131.3	1128.8	1126.3	1123.8	1121.3	1123.3
10°	1128.0	1126.9	1125.9	1124.7	1123.7	1121.7	1118.8	1116.0	1113.1	1110.3	1112.3
12.5°	1115.4	1114.5	1113.6	1112.7	1111.7	1109.9	1107.3	1104.6	1101.9	1099.2	1100.7
15°	1093.5	1092.6	1091.7	1090.9	1090.0	1088.2	1085.2	1082.4	1079.6	1076.8	1078.5
17.5°	1068.0	1066.9	1065.7	1064.6	1063.5	1061.5	1058.7	1055.7	1052.9	1050.1	1051.3
20°	1049.0	1047.7	1046.5	1045.2	1043.9	1041.7	1038.9	1036.0	1033.2	1030.3	1031.2
22.5°	1027.7	1026.4	1025.1	1023.8	1022.5	1020.4	1017.6	1014.7	1011.9	1009.0	1009.7
25°	992.9	991.6	990.2	988.9	987.6	985.5	982.6	979.8	976.9	974.1	974.3
27.5°	955.5	954.2	953.0	951.7	950.5	948.3	945.2	942.2	939.1	935.9	936.1
30°	928.7	927.6	926.5	925.4	924.3	922.2	919.2	916.1	913.0	909.9	909.9
32.5°	901.8	900.4	898.9	897.5	896.1	894.2	891.7	889.4	887.0	884.7	883.4
35°	858.7	857.3	856.0	854.7	853.4	851.3	848.4	845.6	842.7	839.9	838.6
37.5°	814.4	812.8	811.1	809.4	807.8	805.5	802.6	799.7	796.7	793.9	792.3
40°	783.6	782.3	781.0	779.7	778.4	776.2	773.1	770.1	766.9	763.8	762.1
42.5°	752.8	751.3	749.8	748.4	746.9	744.6	741.5	738.4	735.4	732.3	730.6
45°	703.7	702.8	701.9	701.1	700.1	698.3	695.4	692.6	689.8	686.9	684.3
47.5°	654.9	653.7	652.3	651.1	649.8	647.8	645.2	642.5	639.8	637.2	634.5
50°	621.8	620.7	619.5	618.5	617.4	615.4	612.6	609.7	606.8	604.0	601.6
52.5°	587.0	586.3	585.5	584.8	584.0	582.1	579.1	576.1	573.1	570.0	568.0
55°	534.0	533.7	533.5	533.3	533.0	531.5	528.7	525.8	522.9	520.1	517.7
57.5°	483.4	482.7	481.9	481.2	480.4	478.9	476.6	474.3	472.0	469.8	467.6
60°	447.0	446.9	446.7	446.4	446.2	444.8	442.1	439.5	436.9	434.2	432.3
62.5°	414.7	414.2	413.6	413.0	412.5	410.9	408.2	405.6	402.9	400.3	398.3
65°	364.2	363.1	361.9	360.9	359.8	358.2	355.9	353.7	351.6	349.4	347.6
67.5°	310.7	309.7	308.8	307.7	306.8	305.5	303.9	302.2	300.5	298.9	297.3
70°	278.3	277.0	275.7	274.4	273.1	271.7	270.4	269.1	267.8	266.5	264.9
72.5°	244.4	243.4	242.4	241.5	240.5	239.3	237.8	236.3	234.8	233.3	232.0
75°	192.5	191.5	190.7	189.8	189.0	188.1	187.5	186.8	186.2	185.6	184.5
77.5°	146.5	146.0	145.5	145.1	144.5	143.9	143.1	142.3	141.6	140.7	140.0
80°	116.5	115.8	115.2	114.5	113.9	113.3	112.8	112.4	112.0	111.5	111.3
82.5°	87.3	87.1	87.0	86.8	86.7	86.6	86.5	86.4	86.3	86.2	85.9
85°	51.3	50.9	50.4	50.0	49.6	49.4	49.4	49.4	49.4	49.4	48.9
87.5°	20.6	20.5	20.3	20.1	19.9	19.9	20.2	20.5	20.6	20.9	20.8
90°	0.8	2.4	4.1	5.7	7.3	9.1	11.3	13.4	15.6	17.7	18.4
92.5°	13.7	13.3	12.8	12.3	11.9	12.4	14.0	15.6	17.2	18.9	19.9
95°	45.0	38.3	31.5	24.8	18.1	15.6	17.4	19.2	21.0	22.8	24.0
97.5°	90.3	87.4	84.4	81.3	78.3	70.9	59.1	47.3	35.5	23.8	25.1
100°	124.5	127.8	131.1	134.3	137.6	126.5	100.9	75.4	49.9	24.3	25.6
102.5°	163.4	165.8	168.1	170.5	172.9	160.1	132.2	104.2	76.3	48.4	44.4
105°	219.6	221.4	223.2	225.0	226.8	220.4	205.6	190.9	176.1	161.4	132.4
107.5°	278.8	280.3	281.7	283.1	284.6	286.4	288.8	291.2	293.4	295.8	274.6
110°	318.3	319.6	320.9	322.3	323.6	325.1	327.0	328.8	330.5	332.3	327.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	356.1	357.2	358.4	359.6	360.8	362.2	364.1	365.9	367.7	369.5	369.6
115°	411.9	412.9	413.9	414.9	415.8	417.1	418.6	420.0	421.5	423.0	424.6
117.5°	466.0	467.2	468.4	469.7	470.8	471.8	472.6	473.3	474.1	474.9	476.2
120°	499.6	501.1	502.6	504.0	505.5	506.5	507.0	507.5	507.9	508.4	509.7
122.5°	533.8	535.0	536.2	537.4	538.7	539.5	540.2	540.8	541.4	542.1	543.0
125°	580.7	581.9	583.2	584.6	585.9	586.9	587.6	588.1	588.8	589.5	589.8
127.5°	626.0	627.4	628.7	630.0	631.3	632.4	633.1	634.0	634.7	635.5	636.0
130°	654.3	655.6	657.0	658.3	659.6	660.5	661.2	661.9	662.5	663.2	663.8
132.5°	681.5	682.8	684.1	685.4	686.7	687.6	688.2	688.6	689.2	689.8	690.4
135°	722.8	723.9	724.8	725.9	726.8	727.6	728.3	729.0	729.6	730.3	730.8
137.5°	758.3	759.5	760.7	762.0	763.2	764.0	764.4	764.8	765.1	765.4	766.3
140°	781.8	782.8	783.8	784.8	785.8	786.5	787.0	787.5	788.0	788.4	789.1
142.5°	803.6	804.6	805.6	806.6	807.6	808.3	808.8	809.3	809.7	810.3	810.8
145°	834.2	835.3	836.4	837.5	838.8	839.4	839.8	840.1	840.5	840.7	841.1
147.5°	862.9	863.7	864.4	865.2	865.9	866.5	866.8	867.0	867.4	867.7	868.1
150°	880.5	881.1	881.6	882.0	882.5	883.0	883.3	883.6	883.9	884.3	884.6
152.5°	896.5	896.7	896.9	897.2	897.4	897.6	897.8	898.0	898.2	898.4	899.0
155°	918.9	918.6	918.2	917.9	917.6	917.5	917.7	917.8	917.9	918.1	919.0
157.5°	936.2	936.2	936.2	936.1	936.1	936.0	935.9	935.8	935.6	935.4	936.4
160°	946.9	946.7	946.6	946.4	946.2	946.0	945.9	945.7	945.6	945.4	946.4
162.5°	956.9	956.5	956.0	955.6	955.2	954.9	954.7	954.6	954.4	954.2	955.4
165°	969.0	968.5	968.0	967.5	967.0	966.7	966.6	966.4	966.2	966.0	967.3
167.5°	978.5	977.8	977.1	976.5	975.8	975.4	975.4	975.4	975.4	975.4	976.8
170°	983.7	983.1	982.4	981.8	981.1	980.8	980.8	980.8	980.8	980.8	982.1
172.5°	987.2	986.5	985.7	984.9	984.1	983.8	983.9	984.0	984.2	984.3	985.6
175°	991.8	991.0	990.2	989.4	988.5	988.3	988.4	988.5	988.7	988.9	990.0
177.5°	993.0	992.4	991.7	991.1	990.4	990.1	990.2	990.4	990.5	990.6	991.7
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8	1147.8
2.5°	1143.4	1145.2	1146.9	1147.7	1147.5	1147.4	1147.2	1147.0
5°	1137.4	1139.5	1141.8	1142.6	1142.2	1141.8	1141.3	1140.9
7.5°	1125.3	1127.3	1129.3	1130.1	1129.8	1129.5	1129.3	1129.1
10°	1114.3	1116.2	1118.1	1119.0	1118.5	1118.0	1117.7	1117.2
12.5°	1102.1	1103.5	1105.0	1105.6	1105.3	1105.0	1104.8	1104.6
15°	1080.2	1081.9	1083.7	1083.9	1082.6	1081.3	1080.1	1078.7
17.5°	1052.5	1053.8	1055.0	1055.4	1054.9	1054.4	1054.0	1053.5
20°	1032.1	1032.9	1033.9	1034.0	1033.3	1032.6	1032.0	1031.3
22.5°	1010.4	1011.2	1011.8	1011.7	1011.0	1010.1	1009.3	1008.4
25°	974.5	974.8	975.0	974.8	974.1	973.5	972.8	972.1
27.5°	936.3	936.5	936.7	936.3	935.6	934.7	933.9	933.0
30°	909.9	909.9	909.9	909.2	907.7	906.1	904.6	903.1
32.5°	882.2	881.0	879.8	878.7	877.9	877.0	876.2	875.4
35°	837.3	835.9	834.6	833.4	832.3	831.2	830.1	829.0
37.5°	790.7	789.1	787.6	786.5	785.7	785.0	784.3	783.6
40°	760.3	758.7	756.9	755.5	754.7	753.8	752.9	752.1
42.5°	728.8	727.0	725.3	724.0	723.1	722.2	721.3	720.5
45°	681.6	679.0	676.4	674.5	673.4	672.3	671.2	670.1
47.5°	632.0	629.4	626.8	625.0	624.1	623.1	622.2	621.1
50°	599.2	596.7	594.4	592.5	591.2	589.8	588.5	587.2
52.5°	565.9	563.8	561.8	560.2	558.8	557.5	556.2	554.9
55°	515.3	512.8	510.5	508.7	507.6	506.5	505.4	504.4
57.5°	465.4	463.4	461.2	459.5	458.2	456.9	455.6	454.4
60°	430.3	428.3	426.3	424.8	423.7	422.6	421.5	420.5
62.5°	396.3	394.4	392.4	391.1	390.3	389.6	388.8	388.0
65°	345.8	344.1	342.3	341.1	340.4	339.8	339.1	338.5
67.5°	295.8	294.3	292.7	291.4	290.6	289.6	288.7	287.8
70°	263.4	261.8	260.3	259.0	257.9	256.8	255.7	254.6
72.5°	230.5	229.2	227.9	226.9	226.3	225.7	225.2	224.6
75°	183.3	182.3	181.2	180.3	179.6	179.0	178.3	177.7
77.5°	139.2	138.5	137.7	137.4	137.4	137.4	137.4	137.4
80°	111.1	110.8	110.7	110.6	110.6	110.6	110.6	110.6
82.5°	85.5	85.1	84.6	84.4	84.3	84.1	83.9	83.7
85°	48.4	48.1	47.6	47.4	47.4	47.4	47.4	47.4
87.5°	20.8	20.7	20.7	20.7	20.8	20.8	20.9	21.0
90°	19.0	19.6	20.3	20.8	21.1	21.5	21.8	22.1
92.5°	20.9	22.0	23.1	23.7	23.8	24.0	24.2	24.5
95°	25.2	26.3	27.4	28.0	28.0	28.0	28.0	28.0
97.5°	26.4	27.6	28.9	29.7	29.9	30.1	30.2	30.3
100°	27.0	28.3	29.6	30.3	30.4	30.6	30.8	30.9
102.5°	40.3	36.3	32.2	30.3	30.6	30.9	31.2	31.6
105°	103.4	74.5	45.4	31.1	31.5	31.8	32.1	32.4
107.5°	253.3	232.1	210.8	189.2	167.4	145.5	123.7	101.8
110°	321.5	316.1	310.8	296.3	272.9	249.5	226.0	202.6



TEST NUMBER: P331979-830

CATALOG NUMBER: S123DIP-S775D805U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	369.7	369.8	369.9	367.4	362.5	357.5	352.6	347.7
115°	426.2	427.9	429.5	430.6	431.3	432.0	432.6	433.3
117.5°	477.5	478.8	480.0	480.8	481.0	481.1	481.2	481.4
120°	511.0	512.4	513.7	514.3	514.3	514.3	514.3	514.3
122.5°	543.8	544.8	545.7	546.2	546.4	546.5	546.7	546.8
125°	590.1	590.5	590.8	591.2	591.4	591.8	592.1	592.5
127.5°	636.5	637.1	637.5	637.6	637.3	637.1	636.7	636.4
130°	664.5	665.2	665.8	666.0	665.6	665.3	665.0	664.7
132.5°	691.0	691.6	692.3	692.4	692.0	691.5	691.1	690.6
135°	731.2	731.7	732.2	732.2	731.7	731.2	730.8	730.3
137.5°	767.0	767.8	768.6	768.8	768.5	768.2	767.9	767.5
140°	789.8	790.4	791.1	791.3	790.9	790.6	790.2	789.9
142.5°	811.3	811.8	812.4	812.4	811.9	811.4	811.1	810.6
145°	841.4	841.8	842.1	842.3	842.3	842.3	842.3	842.3
147.5°	868.4	868.7	869.0	868.8	868.1	867.3	866.6	865.8
150°	884.9	885.2	885.5	885.5	885.0	884.5	884.0	883.5
152.5°	899.6	900.1	900.8	900.7	899.9	899.2	898.4	897.7
155°	919.8	920.6	921.4	921.3	920.4	919.4	918.4	917.4
157.5°	937.4	938.3	939.3	939.1	937.9	936.6	935.4	934.1
160°	947.3	948.4	949.3	949.2	948.1	947.0	945.8	944.7
162.5°	956.5	957.6	958.7	958.8	957.7	956.7	955.7	954.7
165°	968.7	970.0	971.3	971.4	970.3	969.0	967.9	966.8
167.5°	978.1	979.4	980.7	980.7	979.4	978.1	976.8	975.4
170°	983.4	984.7	986.0	986.0	984.7	983.4	982.1	980.8
172.5°	986.9	988.3	989.6	989.5	988.1	986.7	985.1	983.7
175°	991.2	992.3	993.4	993.3	992.1	990.8	989.5	988.2
177.5°	992.8	993.8	994.9	994.8	993.4	992.1	990.8	989.5
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8

(END OF REPORT)