

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: P333245-830

Luminaire Tested: **S125DIP-S850D1205U830-4F0-1E-UDD-D1**

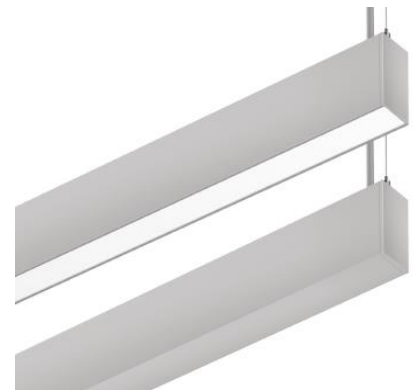
Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333245-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S850D1205U830-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

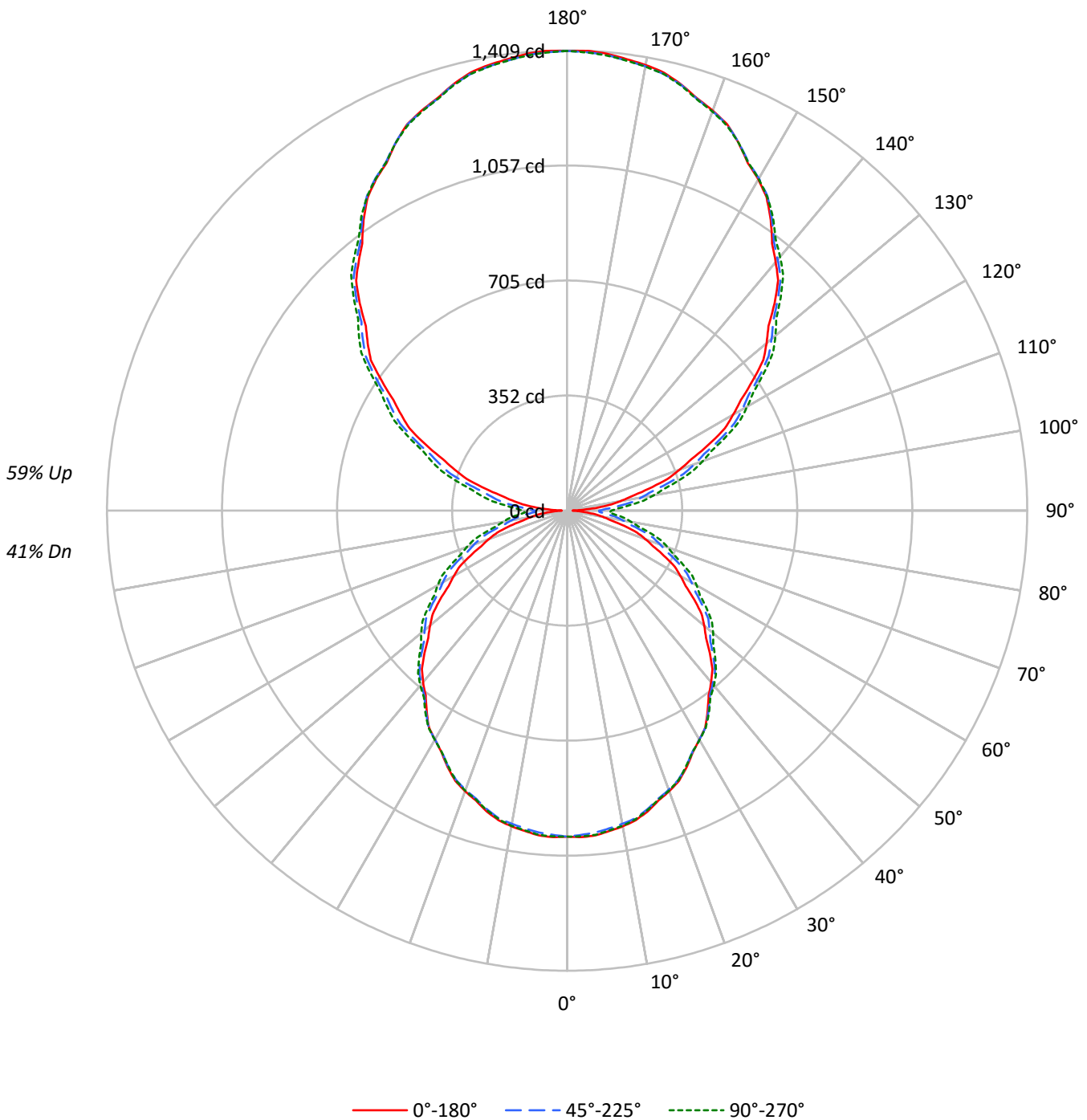
Lumens per Lamp: N/A  
Luminaire Lumens: 7023.0 lumens  
Efficiency: N/A  
Efficacy: 123.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse  
  
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P333245-830

CATALOG NUMBER: S125DIP-S850D1205U830-4F0-1E-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	96	96	96	96	79	79	79		63	63	63		48	48	48	41
1	95	91	87	83	87	83	79	76	68	65	63		54	53	51		42	40	39	34
2	86	79	73	67	78	72	67	62	59	55	52		47	44	42		36	34	33	28
3	79	69	62	56	71	63	57	51	52	47	43		42	38	35		32	30	28	23
4	72	61	53	47	65	56	49	43	46	41	37		37	33	30		28	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31		33	29	26		26	23	20	17
6	61	48	40	34	55	44	37	32	37	31	27		30	26	23		23	20	18	15
7	56	44	36	30	51	40	33	28	33	28	24		27	23	20		21	18	16	13
8	52	40	32	26	47	36	29	25	30	25	21		25	21	18		19	16	14	12
9	48	36	29	23	44	33	26	22	28	22	19		23	19	16		18	15	13	11
10	45	33	26	21	41	30	24	20	25	20	17		21	17	14		16	14	12	10

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

	0°	45°	90°
0°	6448	6448	6448
5°	6461	6330	6350
10°	6415	6216	6207
15°	6340	6081	6026
20°	6237	5914	5845
25°	6114	5735	5621
30°	5965	5538	5419
35°	5827	5357	5233
40°	5686	5166	5046
45°	5526	5003	4880
50°	5375	4826	4733
55°	5192	4659	4561
60°	4992	4468	4385
65°	4783	4270	4187
70°	4546	3997	3985
75°	4170	3735	3735
80°	3682	3416	3463
85°	3220	3204	3378



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.4	1.3
10°-20°	268.0	3.8
20°-30°	398.6	5.7
30°-40°	472.1	6.7
40°-50°	488.1	7.0
50°-60°	449.7	6.4
60°-70°	363.5	5.2
70°-80°	243.4	3.5
80°-90°	129.3	1.8
90°-100°	165.1	2.4
100°-110°	330.6	4.7
110°-120°	506.5	7.2
120°-130°	640.4	9.1
130°-140°	704.0	10.0
140°-150°	683.2	9.7
150°-160°	572.4	8.1
160°-170°	380.5	5.4
170°-180°	133.1	1.9
0°-30°	761.0	10.8
0°-40°	1233.2	17.6
0°-60°	2171.0	30.9
0°-90°	2907.3	41.4
90°-120°	1002.2	14.3
90°-150°	3029.8	43.1
90°-180°	4116.0	58.6
0°-180°	7023.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	998	998	998	998	998	
5°	998	996	990	997	997	95
15°	954	954	948	953	950	268
25°	866	869	863	867	862	399
35°	750	756	754	757	757	469
45°	618	628	633	640	641	477
55°	475	490	506	516	521	424
65°	327	349	373	387	392	324
75°	180	206	237	256	261	191
85°	54	86	120	141	150	57
90°	17	57	98	125	136	14
95°	84	112	156	184	194	86
105°	258	280	316	341	352	276
115°	478	490	517	533	538	473
125°	693	699	719	732	736	620
135°	898	904	911	924	925	692
145°	1086	1090	1093	1098	1099	679
155°	1242	1242	1243	1247	1242	572
165°	1350	1348	1349	1353	1347	381
175°	1404	1400	1400	1406	1399	133
180°	1407	1407	1407	1407	1407	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	1000.8	1000.5	1000.1	999.8	999.4	998.6	997.4	996.2	994.9	993.7	994.9
5°	998.4	998.1	997.6	997.1	996.7	995.7	994.2	992.7	991.2	989.7	991.4
7.5°	989.7	989.5	989.3	989.1	988.9	988.1	986.6	985.0	983.4	981.8	983.4
10°	981.8	981.8	981.8	981.8	981.8	981.0	979.2	977.5	975.7	974.0	975.5
12.5°	970.8	971.0	971.2	971.4	971.6	970.9	969.6	968.2	966.8	965.4	966.6
15°	953.5	953.7	953.9	954.0	954.3	953.7	952.2	950.6	949.0	947.5	948.9
17.5°	930.8	931.1	931.6	932.0	932.5	931.9	930.4	928.9	927.4	925.9	926.8
20°	914.3	914.7	915.1	915.6	916.1	915.5	914.0	912.5	910.9	909.4	910.0
22.5°	895.5	896.3	897.0	897.9	898.6	898.1	896.5	894.8	893.1	891.4	892.2
25°	866.3	867.0	867.6	868.3	868.9	868.6	867.3	866.0	864.7	863.4	864.2
27.5°	833.8	834.8	835.8	836.7	837.6	837.4	835.9	834.4	832.9	831.5	832.1
30°	809.5	810.9	812.2	813.4	814.7	814.7	813.4	812.2	810.9	809.5	810.0
32.5°	787.6	788.7	789.9	791.0	792.1	792.2	791.3	790.3	789.4	788.4	788.8
35°	749.8	751.4	752.9	754.4	755.9	756.4	755.7	755.1	754.4	753.8	754.4
37.5°	712.0	713.4	714.8	716.2	717.7	718.2	717.9	717.7	717.6	717.4	718.2
40°	686.2	688.0	689.7	691.4	693.1	693.9	693.7	693.5	693.2	693.1	693.9
42.5°	658.0	660.3	662.5	664.8	667.0	668.5	668.9	669.4	669.9	670.3	671.4
45°	617.6	620.1	622.5	624.8	627.3	629.0	630.1	631.1	632.3	633.3	634.9
47.5°	576.4	578.6	580.8	583.1	585.2	587.3	589.2	591.1	592.9	594.7	597.0
50°	548.2	550.5	553.0	555.3	557.7	560.2	562.5	565.0	567.3	569.7	572.1
52.5°	518.4	521.3	524.2	527.2	530.1	533.0	535.9	538.9	541.8	544.7	547.2
55°	474.8	478.2	481.7	485.2	488.7	492.2	495.7	499.2	502.6	506.1	508.5
57.5°	430.1	434.3	438.5	442.6	446.9	450.9	455.0	458.9	462.9	466.9	469.7
60°	400.4	404.7	409.1	413.4	417.7	422.2	426.5	430.8	435.2	439.5	442.8
62.5°	371.4	375.7	380.1	384.5	388.8	393.3	398.0	402.7	407.4	412.1	415.8
65°	327.0	332.0	337.0	342.0	346.9	352.0	357.3	362.5	367.8	373.0	376.3
67.5°	285.0	289.9	294.7	299.5	304.3	309.4	314.7	320.1	325.4	330.6	334.6
70°	254.5	259.5	264.5	269.6	274.6	279.8	285.5	291.2	296.8	302.5	306.6
72.5°	224.8	229.9	235.1	240.3	245.4	251.1	257.3	263.5	269.7	275.9	280.3
75°	180.1	185.8	191.4	197.1	202.7	209.1	216.0	223.0	229.9	236.9	241.2
77.5°	137.2	143.7	150.3	156.8	163.3	169.9	176.6	183.3	190.0	196.8	201.5
80°	110.7	117.2	123.7	130.2	136.8	143.6	151.1	158.4	165.9	173.2	178.0
82.5°	86.3	93.2	100.1	107.0	113.9	121.0	128.7	136.2	143.7	151.4	156.0
85°	53.8	61.0	68.2	75.4	82.6	89.9	97.6	105.2	112.8	120.4	125.2
87.5°	30.7	38.1	45.4	52.8	60.1	67.7	75.4	83.1	91.0	98.7	103.9
90°	16.8	25.6	34.6	43.5	52.4	61.4	70.5	79.6	88.7	97.8	104.1
92.5°	40.6	48.4	56.2	64.0	71.8	80.6	90.2	99.9	109.5	119.2	125.6
95°	83.9	90.1	96.2	102.4	108.5	116.5	126.3	136.1	146.0	155.8	162.3
97.5°	129.9	135.2	140.4	145.7	151.0	158.9	169.4	179.8	190.4	200.9	207.0
100°	164.1	168.7	173.2	177.9	182.4	189.7	199.8	210.0	220.1	230.3	237.0
102.5°	201.0	206.2	211.4	216.6	221.8	228.6	237.0	245.3	253.7	262.1	268.9
105°	258.5	263.3	268.0	272.6	277.3	283.7	291.6	299.6	307.6	315.7	321.4
107.5°	322.2	326.4	330.5	334.7	338.9	344.7	352.0	359.5	366.8	374.2	379.3
110°	366.1	369.9	373.7	377.6	381.4	386.7	393.5	400.4	407.2	414.1	418.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	411.7	414.3	417.1	419.8	422.5	427.3	434.1	441.0	447.9	454.7	459.0
115°	478.0	480.4	483.0	485.4	488.0	492.3	498.4	504.5	510.7	516.8	520.5
117.5°	544.4	545.8	547.3	548.7	550.2	553.8	559.6	565.3	571.2	576.9	580.9
120°	586.4	588.3	590.2	592.1	594.0	597.5	602.8	608.0	613.2	618.5	622.2
122.5°	631.3	632.0	632.7	633.5	634.2	637.3	642.8	648.3	653.7	659.2	662.5
125°	692.9	694.1	695.3	696.5	697.9	700.8	705.3	709.9	714.5	719.1	722.1
127.5°	757.6	758.2	758.8	759.4	760.1	762.2	766.1	770.0	773.8	777.7	780.7
130°	797.0	798.1	799.0	800.0	801.0	803.2	806.8	810.3	813.9	817.4	820.2
132.5°	835.7	837.6	839.5	841.5	843.5	845.6	847.8	850.1	852.3	854.6	857.3
135°	897.9	899.2	900.4	901.6	902.9	904.4	906.2	908.0	909.6	911.4	914.3
137.5°	956.4	957.6	958.8	960.1	961.4	962.6	963.8	965.2	966.5	967.7	970.5
140°	993.3	994.5	995.7	996.9	998.2	999.3	1000.2	1001.2	1002.1	1003.1	1005.9
142.5°	1031.0	1031.8	1032.6	1033.5	1034.3	1035.3	1036.2	1037.2	1038.2	1039.2	1041.5
145°	1086.4	1087.1	1087.9	1088.6	1089.4	1090.1	1090.9	1091.7	1092.3	1093.1	1094.2
147.5°	1136.7	1137.2	1137.7	1138.3	1138.8	1139.3	1140.0	1140.6	1141.1	1141.7	1142.6
150°	1170.8	1170.6	1170.4	1170.2	1169.9	1170.3	1171.2	1172.1	1173.2	1174.1	1174.1
152.5°	1198.9	1199.2	1199.6	1200.0	1200.2	1200.6	1201.0	1201.4	1201.8	1202.2	1202.8
155°	1242.1	1242.1	1242.1	1242.1	1242.1	1242.2	1242.5	1242.6	1242.9	1243.1	1244.2
157.5°	1280.6	1280.1	1279.5	1279.0	1278.5	1278.3	1278.6	1278.8	1279.0	1279.3	1280.3
160°	1303.3	1302.7	1301.9	1301.2	1300.4	1300.2	1300.4	1300.7	1301.0	1301.2	1302.1
162.5°	1323.5	1323.0	1322.5	1321.9	1321.4	1321.2	1321.2	1321.3	1321.3	1321.4	1322.5
165°	1350.5	1350.0	1349.5	1349.1	1348.5	1348.4	1348.7	1348.9	1349.2	1349.3	1350.4
167.5°	1373.3	1372.2	1371.3	1370.4	1369.3	1368.9	1368.9	1368.9	1368.9	1368.9	1370.4
170°	1385.5	1384.6	1383.6	1382.6	1381.7	1381.1	1381.1	1381.1	1381.1	1381.1	1382.6
172.5°	1394.3	1393.4	1392.3	1391.4	1390.4	1389.9	1389.9	1389.9	1389.9	1389.9	1391.4
175°	1404.1	1403.2	1402.2	1401.2	1400.2	1399.8	1399.8	1399.8	1399.8	1399.8	1401.2
177.5°	1409.2	1408.4	1407.6	1406.8	1406.1	1405.6	1405.4	1405.2	1405.0	1404.8	1406.0
180°	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	996.2	997.4	998.6	999.2	999.0	998.8	998.6	998.4
5°	993.2	994.9	996.6	997.4	997.1	996.9	996.7	996.6
7.5°	984.9	986.4	987.9	988.5	988.4	988.2	987.9	987.7
10°	977.0	978.5	980.1	980.7	980.5	980.3	980.1	979.9
12.5°	967.7	968.9	970.1	970.3	969.8	969.2	968.7	968.1
15°	950.2	951.5	952.8	953.0	952.2	951.2	950.4	949.5
17.5°	927.8	928.9	929.8	930.1	929.5	929.1	928.5	928.0
20°	910.7	911.3	912.0	912.3	912.3	912.3	912.3	912.3
22.5°	893.1	893.8	894.7	894.8	894.3	893.8	893.2	892.8
25°	865.2	866.0	866.9	866.8	865.6	864.6	863.5	862.4
27.5°	832.6	833.3	833.9	834.1	833.6	833.2	832.8	832.5
30°	810.4	810.9	811.2	811.4	811.2	811.0	810.8	810.5
32.5°	789.3	789.7	790.1	790.2	790.0	789.9	789.6	789.4
35°	755.1	755.7	756.4	756.7	756.7	756.7	756.7	756.7
37.5°	719.1	719.9	720.8	721.2	721.1	721.0	721.0	720.9
40°	694.7	695.7	696.5	697.2	697.6	698.0	698.5	698.9
42.5°	672.4	673.4	674.5	675.0	675.1	675.2	675.3	675.4
45°	636.4	637.9	639.4	640.3	640.6	640.7	640.9	641.2
47.5°	599.2	601.4	603.6	605.0	605.5	606.0	606.4	606.9
50°	574.5	576.9	579.3	580.8	581.5	582.1	582.8	583.4
52.5°	549.8	552.3	554.9	556.5	556.9	557.4	557.9	558.4
55°	510.9	513.3	515.7	517.3	518.1	519.1	519.9	520.8
57.5°	472.4	475.1	477.9	479.6	480.2	480.9	481.5	482.2
60°	446.0	449.3	452.6	454.5	455.2	455.8	456.5	457.1
62.5°	419.3	422.9	426.6	428.8	429.6	430.5	431.2	432.1
65°	379.5	382.8	386.0	388.0	389.0	389.8	390.7	391.5
67.5°	338.6	342.5	346.5	349.0	350.2	351.3	352.4	353.5
70°	310.8	314.9	319.1	321.7	323.0	324.3	325.6	327.0
72.5°	284.8	289.3	293.8	296.5	297.5	298.4	299.4	300.3
75°	245.6	250.0	254.3	257.0	258.1	259.2	260.2	261.4
77.5°	206.3	211.1	215.9	218.8	219.6	220.5	221.3	222.3
80°	182.9	187.7	192.4	195.2	196.1	197.0	197.8	198.7
82.5°	160.5	165.1	169.8	172.9	174.5	176.0	177.6	179.2
85°	130.0	134.8	139.6	142.8	144.6	146.3	148.1	149.8
87.5°	109.1	114.4	119.6	123.1	124.8	126.4	128.1	129.8
90°	110.3	116.5	122.7	126.9	129.1	131.4	133.7	135.9
92.5°	132.1	138.5	145.0	149.2	151.3	153.3	155.3	157.4
95°	168.8	175.2	181.7	186.0	188.0	190.0	192.0	194.1
97.5°	213.2	219.3	225.6	229.5	231.3	233.1	234.8	236.6
100°	243.7	250.5	257.2	261.6	263.3	265.1	266.9	268.7
102.5°	275.7	282.5	289.3	293.6	295.7	297.7	299.6	301.6
105°	327.3	333.0	338.8	342.9	345.2	347.4	349.7	351.9
107.5°	384.3	389.4	394.4	397.6	398.9	400.1	401.4	402.7
110°	423.8	428.6	433.5	436.6	437.8	439.1	440.4	441.7





TEST NUMBER: P333245-830

CATALOG NUMBER: S125DIP-S850D1205U830-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	463.3	467.6	471.9	474.6	475.7	476.7	477.9	478.9
115°	524.1	527.8	531.5	533.9	534.9	536.0	537.1	538.1
117.5°	584.8	588.6	592.5	594.7	595.2	595.8	596.3	596.7
120°	625.9	629.6	633.3	635.3	635.7	636.0	636.3	636.7
122.5°	665.8	669.2	672.5	674.4	675.0	675.5	676.0	676.6
125°	725.1	728.1	731.1	733.0	733.9	734.7	735.6	736.4
127.5°	783.6	786.6	789.6	791.5	792.2	793.1	793.8	794.6
130°	823.0	825.9	828.6	830.3	830.9	831.5	832.1	832.7
132.5°	860.2	863.0	865.8	867.3	867.5	867.8	868.0	868.3
135°	917.1	919.9	922.7	924.3	924.4	924.4	924.5	924.6
137.5°	973.5	976.3	979.1	980.4	980.1	979.7	979.4	979.0
140°	1008.8	1011.7	1014.6	1015.9	1015.5	1015.1	1014.7	1014.5
142.5°	1043.9	1046.1	1048.5	1049.5	1049.1	1048.8	1048.5	1048.1
145°	1095.2	1096.4	1097.4	1098.1	1098.2	1098.3	1098.4	1098.6
147.5°	1143.6	1144.5	1145.5	1145.3	1144.1	1142.7	1141.5	1140.2
150°	1174.1	1174.1	1174.1	1174.0	1173.7	1173.5	1173.2	1172.9
152.5°	1203.3	1203.9	1204.5	1204.4	1203.5	1202.7	1201.9	1201.1
155°	1245.1	1246.0	1247.1	1246.9	1245.7	1244.4	1243.3	1242.1
157.5°	1281.2	1282.2	1283.2	1282.9	1281.3	1279.7	1278.1	1276.5
160°	1303.2	1304.1	1305.0	1305.0	1303.7	1302.5	1301.3	1300.1
162.5°	1323.7	1324.8	1326.1	1325.9	1324.5	1323.0	1321.6	1320.2
165°	1351.3	1352.3	1353.3	1353.0	1351.6	1350.1	1348.7	1347.2
167.5°	1371.8	1373.3	1374.7	1374.7	1373.2	1371.7	1370.2	1368.7
170°	1384.0	1385.5	1387.0	1386.9	1385.2	1383.5	1381.8	1380.1
172.5°	1392.8	1394.3	1395.7	1395.7	1394.2	1392.7	1391.2	1389.7
175°	1402.7	1404.1	1405.6	1405.5	1403.8	1402.1	1400.3	1398.6
177.5°	1407.1	1408.3	1409.5	1409.4	1408.1	1406.7	1405.3	1403.9
180°	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4	1407.4

(END OF REPORT)