

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: P333236-830

Luminaire Tested: **S125DIP-S850D1035U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333236-830  
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-S850D1035U830-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6469.3 lumens  
Efficiency: N/A  
Efficacy: 124.4 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

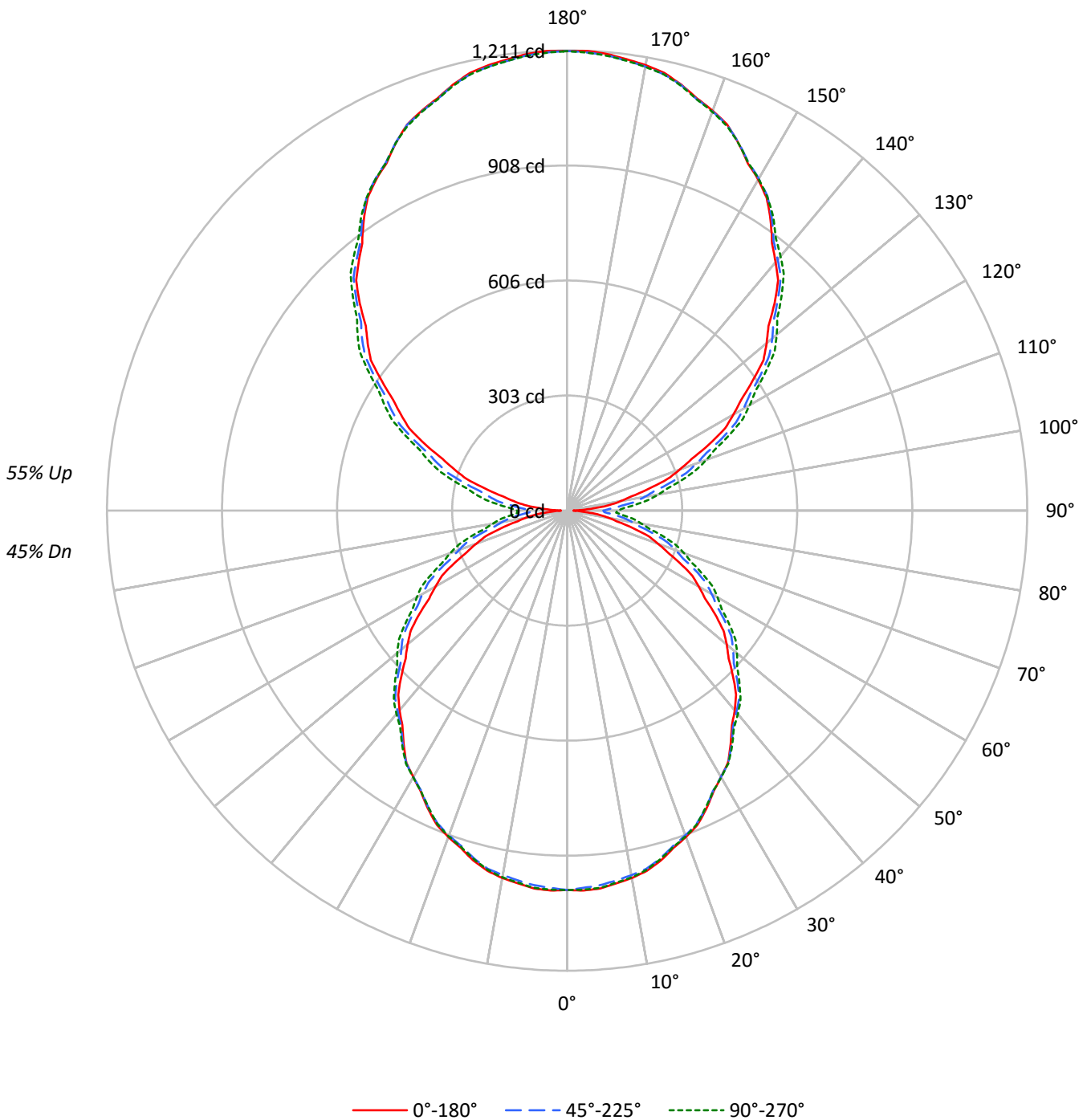
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	51	51	51	45
1	96	91	87	84	88	84	80	77	70	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	28	25	21
5	66	55	46	40	60	50	43	38	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	41	33	28	34	29	25	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	21	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	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	1.5
10°-20°	268.0	4.1
20°-30°	398.6	6.2
30°-40°	472.1	7.3
40°-50°	488.1	7.5
50°-60°	449.7	7.0
60°-70°	363.5	5.6
70°-80°	243.4	3.8
80°-90°	128.9	2.0
90°-100°	151.8	2.3
100°-110°	291.4	4.5
110°-120°	440.1	6.8
120°-130°	553.0	8.5
130°-140°	606.0	9.4
140°-150°	587.2	9.1
150°-160°	491.7	7.6
160°-170°	326.9	5.1
170°-180°	114.4	1.8
0°-30°	761.0	11.8
0°-40°	1233.2	19.1
0°-60°	2171.0	33.6
0°-90°	2906.8	44.9
90°-120°	883.3	13.7
90°-150°	2629.5	40.6
90°-180°	3563.0	55.1
0°-180°	6469.3	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	56	95	122	132	14
95°	74	102	144	171	181	75
105°	223	245	279	303	314	238
115°	411	423	449	465	471	407
125°	596	601	621	634	639	533
135°	772	776	784	796	798	595
145°	934	936	939	944	945	583
155°	1067	1067	1068	1071	1067	491
165°	1160	1159	1159	1162	1157	327
175°	1206	1203	1203	1208	1202	115
180°	1209	1209	1209	1209	1209	



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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	38.0	45.3	52.6	59.9	67.4	75.1	82.8	90.5	98.1	103.4
90°	16.6	25.3	33.8	42.5	51.2	59.9	68.7	77.6	86.4	95.3	101.4
92.5°	36.9	44.5	52.1	59.7	67.3	75.8	85.2	94.5	103.9	113.3	119.5
95°	73.9	79.9	86.1	92.1	98.2	105.9	115.5	125.0	134.4	143.9	150.1
97.5°	113.2	118.5	123.7	128.9	134.2	141.9	151.8	161.9	171.9	181.9	187.8
100°	142.5	147.0	151.7	156.2	160.8	167.9	177.6	187.3	196.9	206.6	213.1
102.5°	174.1	179.2	184.2	189.3	194.4	201.0	209.1	217.3	225.5	233.6	240.1
105°	223.4	227.9	232.4	237.0	241.5	247.6	255.4	263.2	271.0	278.7	284.4
107.5°	277.9	281.9	285.9	289.9	293.9	299.5	306.7	314.0	321.2	328.4	333.4
110°	315.5	319.1	322.8	326.5	330.1	335.3	342.0	348.7	355.4	362.2	366.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	354.7	357.3	359.9	362.5	365.1	369.9	376.5	383.2	389.9	396.7	401.0
115°	411.4	413.8	416.1	418.5	420.8	425.1	431.2	437.2	443.3	449.4	453.1
117.5°	468.4	469.8	471.2	472.6	473.9	477.5	483.2	488.9	494.6	500.4	504.3
120°	504.5	506.2	507.9	509.6	511.3	514.8	520.0	525.3	530.5	535.6	539.3
122.5°	542.9	543.6	544.3	545.0	545.6	548.7	554.0	559.4	564.8	570.1	573.5
125°	595.8	596.8	597.9	598.9	599.9	602.8	607.3	611.9	616.4	620.9	624.1
127.5°	651.3	651.8	652.2	652.8	653.3	655.4	659.2	663.1	666.8	670.7	673.7
130°	685.1	686.0	686.8	687.7	688.4	690.6	694.1	697.6	701.0	704.5	707.3
132.5°	718.2	719.9	721.6	723.2	724.9	726.9	729.2	731.4	733.7	735.9	738.8
135°	771.7	772.7	773.7	774.8	775.8	777.2	778.9	780.7	782.4	784.1	786.9
137.5°	821.9	822.9	824.0	825.0	826.0	827.2	828.4	829.6	830.8	832.0	834.8
140°	853.5	854.6	855.6	856.7	857.7	858.7	859.5	860.4	861.2	862.0	864.9
142.5°	885.9	886.6	887.3	888.0	888.7	889.5	890.3	891.2	892.0	892.9	895.1
145°	933.5	934.2	934.7	935.4	935.9	936.6	937.3	937.8	938.5	939.1	940.2
147.5°	976.6	977.0	977.5	978.0	978.4	978.9	979.4	979.9	980.3	980.9	981.8
150°	1005.9	1005.7	1005.5	1005.3	1005.1	1005.4	1006.3	1007.1	1007.9	1008.7	1008.7
152.5°	1030.0	1030.3	1030.6	1030.9	1031.1	1031.5	1031.8	1032.2	1032.5	1032.8	1033.3
155°	1067.1	1067.1	1067.1	1067.1	1067.1	1067.1	1067.4	1067.6	1067.8	1068.0	1068.8
157.5°	1100.2	1099.8	1099.3	1098.8	1098.3	1098.3	1098.4	1098.6	1098.9	1099.1	1099.9
160°	1119.7	1119.2	1118.5	1117.9	1117.3	1117.1	1117.3	1117.5	1117.7	1117.9	1118.7
162.5°	1137.1	1136.6	1136.1	1135.7	1135.3	1135.0	1135.1	1135.1	1135.2	1135.2	1136.2
165°	1160.3	1159.8	1159.4	1159.0	1158.6	1158.5	1158.7	1158.9	1159.0	1159.3	1160.2
167.5°	1179.8	1178.9	1178.2	1177.3	1176.5	1176.0	1176.0	1176.0	1176.0	1176.0	1177.3
170°	1190.3	1189.5	1188.6	1187.9	1187.0	1186.6	1186.6	1186.6	1186.6	1186.6	1187.9
172.5°	1197.9	1197.0	1196.2	1195.3	1194.6	1194.1	1194.1	1194.1	1194.1	1194.1	1195.3
175°	1206.4	1205.5	1204.7	1203.8	1203.0	1202.6	1202.6	1202.6	1202.6	1202.6	1203.8
177.5°	1210.7	1210.0	1209.4	1208.6	1208.0	1207.6	1207.4	1207.2	1207.1	1206.9	1208.0
180°	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2



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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°	108.6	113.8	119.0	122.4	124.1	125.7	127.3	129.0
90°	107.4	113.5	119.5	123.7	125.7	127.9	130.1	132.2
92.5°	125.7	131.9	138.1	142.2	144.2	146.2	148.2	150.1
95°	156.4	162.7	168.9	173.1	174.9	176.9	178.8	180.8
97.5°	193.8	199.8	205.8	209.5	211.3	213.0	214.7	216.5
100°	219.5	225.9	232.4	236.5	238.3	240.0	241.7	243.4
102.5°	246.5	252.9	259.4	263.5	265.4	267.3	269.2	271.1
105°	289.9	295.6	301.1	305.0	307.2	309.3	311.5	313.7
107.5°	338.3	343.3	348.2	351.3	352.6	353.9	355.2	356.5
110°	371.7	376.5	381.3	384.3	385.6	386.9	388.2	389.6





TEST NUMBER: P333236-830

CATALOG NUMBER: S125DIP-S850D1035U830-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	405.2	409.4	413.7	416.4	417.5	418.7	419.8	420.9
115°	456.8	460.5	464.2	466.7	467.7	468.8	469.9	471.0
117.5°	508.1	512.0	515.9	518.1	518.8	519.4	520.0	520.7
120°	543.1	546.8	550.4	552.5	553.0	553.5	553.9	554.4
122.5°	576.8	580.2	583.6	585.6	586.3	586.8	587.5	588.1
125°	627.1	630.2	633.2	635.2	636.1	637.0	637.8	638.8
127.5°	676.7	679.7	682.7	684.7	685.5	686.4	687.2	688.1
130°	710.1	712.9	715.8	717.6	718.2	718.9	719.5	720.2
132.5°	741.6	744.5	747.3	748.9	749.2	749.5	749.9	750.2
135°	789.8	792.6	795.4	797.0	797.2	797.5	797.8	798.0
137.5°	837.6	840.5	843.3	844.6	844.4	844.2	844.0	843.9
140°	867.6	870.4	873.3	874.6	874.4	874.2	874.0	873.9
142.5°	897.4	899.8	902.0	903.1	902.9	902.7	902.6	902.4
145°	941.3	942.4	943.5	944.1	944.3	944.6	944.8	945.1
147.5°	982.6	983.4	984.3	984.2	983.2	982.1	981.1	980.1
150°	1008.7	1008.7	1008.7	1008.6	1008.4	1008.2	1008.0	1007.9
152.5°	1033.9	1034.3	1034.8	1034.7	1034.1	1033.3	1032.6	1031.9
155°	1069.7	1070.5	1071.4	1071.3	1070.3	1069.1	1068.1	1067.1
157.5°	1100.7	1101.5	1102.4	1102.1	1100.8	1099.4	1098.0	1096.6
160°	1119.6	1120.4	1121.2	1121.2	1120.1	1119.1	1118.0	1116.9
162.5°	1137.2	1138.2	1139.3	1139.2	1137.9	1136.7	1135.5	1134.3
165°	1160.9	1161.8	1162.6	1162.4	1161.2	1159.9	1158.7	1157.4
167.5°	1178.6	1179.8	1181.1	1181.0	1179.8	1178.5	1177.1	1175.8
170°	1189.1	1190.3	1191.6	1191.5	1190.1	1188.5	1187.1	1185.6
172.5°	1196.7	1197.9	1199.1	1199.1	1197.8	1196.6	1195.2	1193.9
175°	1205.1	1206.4	1207.6	1207.5	1206.1	1204.6	1203.1	1201.6
177.5°	1208.9	1209.9	1210.9	1210.9	1209.7	1208.5	1207.3	1206.2
180°	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2	1209.2

(END OF REPORT)