

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: P333249-830

Luminaire Tested: **S125DIP-S850D1205U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333249-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
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-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7296.4 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

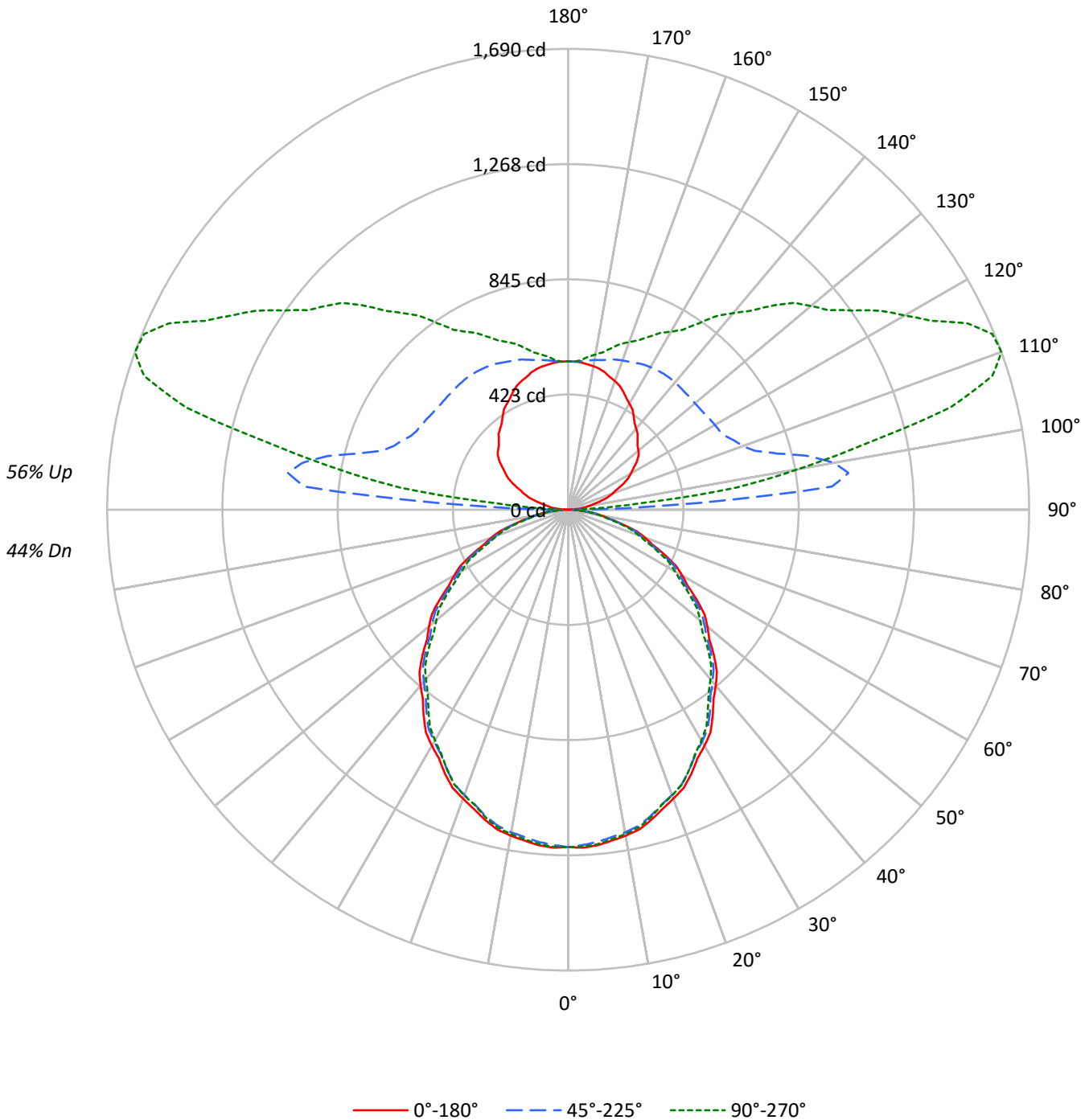
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																				
0	106	106	106	106	97	97	97	97	80	80	80		65	65	65		51	51	51	44
1	96	92	88	85	88	84	81	78	70	68	66		57	55	54		45	44	43	37
2	88	80	74	69	80	74	69	64	61	58	54		50	47	45		39	38	36	31
3	80	71	63	58	73	65	59	53	54	49	46		44	41	38		35	33	31	26
4	73	62	55	49	67	57	51	45	48	43	39		39	35	32		31	28	26	22
5	67	56	48	42	61	51	44	39	43	38	33		35	31	28		28	25	23	20
6	62	50	42	36	56	46	39	34	39	33	29		32	28	25		25	22	20	17
7	57	45	37	31	52	41	34	29	35	30	26		29	25	22		23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23		26	22	19		21	18	16	14
9	49	37	30	25	45	34	28	23	29	24	20		24	20	17		20	17	14	12
10	46	34	27	22	42	32	25	21	27	22	18		22	18	16		18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7991	7991	7991
5°	8009	7933	7983
10°	7960	7877	7922
15°	7874	7782	7815
20°	7750	7649	7663
25°	7617	7492	7485
30°	7454	7322	7285
35°	7278	7139	7039
40°	7098	6940	6842
45°	6902	6760	6625
50°	6688	6540	6344
55°	6481	6293	6117
60°	6234	6044	5829
65°	5938	5744	5550
70°	5655	5399	5214
75°	5153	4983	4811
80°	4590	4515	4407
85°	3987	4068	3838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	1.6
10°-20°	329.6	4.5
20°-30°	486.6	6.7
30°-40°	567.8	7.8
40°-50°	570.3	7.8
50°-60°	500.6	6.9
60°-70°	373.0	5.1
70°-80°	213.3	2.9
80°-90°	65.1	0.9
90°-100°	393.7	5.4
100°-110°	846.4	11.6
110°-120°	794.4	10.9
120°-130°	643.8	8.8
130°-140°	516.6	7.1
140°-150°	389.9	5.3
150°-160°	274.4	3.8
160°-170°	161.8	2.2
170°-180°	52.6	0.7
0°-30°	932.8	12.8
0°-40°	1500.6	20.6
0°-60°	2571.4	35.2
0°-90°	3222.8	44.2
90°-120°	2034.5	27.9
90°-150°	3584.8	49.1
90°-180°	4074.0	55.8
0°-180°	7296.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1235	1233	1224	1232	1231	117
15°	1178	1174	1164	1169	1169	332
25°	1069	1064	1051	1053	1050	492
35°	923	919	906	900	893	577
45°	756	751	740	729	725	582
55°	576	572	559	550	543	514
65°	389	386	376	367	363	386
75°	206	204	200	197	193	220
85°	54	55	55	54	52	60
90°	1	10	18	23	25	5
95°	36	107	970	440	257	38
105°	124	173	794	1563	1451	130
115°	221	267	637	1374	1616	218
125°	307	359	611	1093	1274	272
135°	359	432	607	916	1058	279
145°	418	479	609	758	834	262
155°	478	514	594	671	700	220
165°	521	536	570	604	613	147
175°	542	542	546	553	551	51
180°	543	543	543	543	543	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1240.5	1239.9	1239.4	1238.9	1238.3	1237.2	1235.5	1233.8	1232.0	1230.3	1232.0
5°	1235.4	1234.9	1234.4	1234.1	1233.6	1232.3	1230.1	1227.9	1225.8	1223.6	1225.6
7.5°	1224.0	1223.6	1223.1	1222.7	1222.3	1220.9	1218.4	1216.1	1213.7	1211.3	1213.1
10°	1213.8	1213.4	1213.0	1212.5	1212.1	1210.7	1208.2	1205.9	1203.5	1201.1	1202.9
12.5°	1201.3	1200.5	1199.8	1198.9	1198.2	1196.7	1194.5	1192.2	1190.0	1187.8	1189.2
15°	1177.6	1177.0	1176.3	1175.6	1175.0	1173.5	1171.1	1168.7	1166.3	1163.9	1165.0
17.5°	1150.4	1149.4	1148.5	1147.5	1146.6	1144.8	1142.4	1139.9	1137.4	1134.9	1136.2
20°	1127.7	1127.3	1126.8	1126.3	1126.0	1124.3	1121.4	1118.6	1115.8	1113.0	1114.6
22.5°	1104.9	1104.2	1103.4	1102.6	1101.8	1100.1	1097.5	1094.8	1092.1	1089.5	1090.5
25°	1068.9	1067.9	1066.8	1065.6	1064.6	1062.6	1059.8	1057.0	1054.1	1051.3	1051.8
27.5°	1026.8	1026.2	1025.6	1024.9	1024.3	1022.5	1019.5	1016.6	1013.7	1010.8	1010.9
30°	999.5	998.8	998.2	997.5	996.8	994.9	991.6	988.4	985.1	981.8	981.4
32.5°	969.7	968.7	967.7	966.7	965.7	963.7	960.8	957.9	955.0	952.1	951.3
35°	923.1	922.2	921.3	920.5	919.6	917.7	914.6	911.5	908.5	905.5	904.4
37.5°	874.8	873.6	872.5	871.5	870.3	868.4	865.5	862.6	859.8	857.0	855.3
40°	841.9	840.7	839.7	838.6	837.4	835.5	832.4	829.3	826.3	823.2	821.3
42.5°	806.6	805.7	804.7	803.9	803.0	801.0	798.0	794.8	791.8	788.8	787.0
45°	755.7	754.8	753.9	753.1	752.2	750.5	747.9	745.3	742.6	740.1	737.4
47.5°	700.9	701.0	701.0	701.0	701.1	699.6	696.4	693.2	690.1	687.0	684.3
50°	665.6	665.0	664.3	663.6	663.1	661.4	658.8	656.2	653.6	650.9	648.1
52.5°	629.6	629.1	628.7	628.2	627.7	626.0	623.3	620.5	617.7	614.9	612.5
55°	575.6	575.0	574.3	573.6	573.0	571.1	568.1	565.1	561.9	558.9	556.9
57.5°	518.6	518.3	517.9	517.6	517.3	515.8	513.2	510.7	508.0	505.5	502.9
60°	482.6	481.7	480.9	479.9	479.1	477.5	475.0	472.7	470.3	467.9	465.7
62.5°	445.0	444.3	443.7	442.9	442.2	440.8	438.8	436.8	434.7	432.6	430.4
65°	388.6	388.1	387.8	387.3	386.9	385.5	383.0	380.7	378.2	375.9	373.9
67.5°	334.0	333.1	332.2	331.2	330.4	328.9	327.3	325.5	323.7	321.9	320.2
70°	299.5	298.4	297.4	296.2	295.2	293.7	291.7	289.7	287.8	285.9	284.6
72.5°	261.9	261.2	260.4	259.8	259.0	258.0	256.7	255.4	254.2	253.0	251.5
75°	206.5	206.1	205.7	205.3	204.8	204.1	202.9	201.9	200.8	199.7	199.1
77.5°	155.4	155.2	155.1	155.0	154.8	154.4	153.7	153.2	152.5	151.9	151.6
80°	123.4	123.4	123.4	123.4	123.4	123.1	122.7	122.2	121.8	121.4	121.2
82.5°	95.1	94.8	94.4	94.1	93.8	93.5	93.4	93.4	93.3	93.2	92.8
85°	53.8	54.1	54.3	54.5	54.7	54.9	54.9	54.9	54.9	54.9	54.6
87.5°	21.4	21.6	22.1	22.4	22.9	23.3	23.3	23.6	23.6	23.8	24.1
90°	1.1	2.2	4.3	6.6	8.8	10.9	12.1	14.2	15.4	17.5	18.7
92.5°	13.4	16.2	25.4	39.0	57.9	89.8	149.6	250.0	358.8	353.1	285.9
95°	36.1	37.2	46.0	58.1	82.1	131.4	248.6	489.6	791.8	970.3	949.5
97.5°	60.0	61.4	67.5	79.6	101.2	136.7	214.2	390.8	707.1	1036.2	1201.5
100°	76.6	78.9	83.2	95.3	116.1	148.9	212.4	354.9	630.8	988.9	1262.7
102.5°	95.1	96.4	99.9	112.8	131.9	163.8	220.4	340.0	573.0	905.7	1226.0
105°	123.8	123.8	129.2	140.2	157.7	188.4	236.6	334.0	516.9	794.0	1108.3
107.5°	151.7	154.0	159.2	168.2	186.4	214.0	260.6	344.1	493.2	717.1	988.4
110°	171.9	174.2	178.5	188.4	204.8	233.3	278.1	353.7	486.3	681.2	919.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	192.1	194.3	197.7	207.6	224.0	251.7	294.8	366.0	486.3	660.2	869.1
115°	221.2	223.4	226.7	236.6	253.0	280.4	320.9	384.4	489.6	637.4	813.7
117.5°	247.5	250.8	254.3	264.2	282.8	309.2	347.6	405.5	496.8	626.2	780.6
120°	265.0	268.3	272.7	282.6	301.1	328.6	366.9	419.4	503.8	620.9	762.2
122.5°	283.4	285.9	289.4	299.2	319.6	346.9	385.3	435.3	509.9	616.6	746.5
125°	306.6	308.9	314.3	324.1	345.0	373.4	409.6	456.7	520.2	611.1	725.0
127.5°	324.8	328.1	335.2	347.6	369.8	398.2	433.0	476.5	531.8	608.5	705.3
130°	336.2	339.5	348.3	362.5	385.5	414.0	447.9	489.6	538.9	606.7	692.2
132.5°	345.0	349.1	359.7	375.7	399.5	428.0	461.9	501.0	546.7	606.7	681.6
135°	359.2	363.6	376.7	394.3	417.3	446.9	480.8	516.9	557.4	606.7	669.2
137.5°	377.2	380.5	392.8	410.3	432.8	463.3	494.2	528.8	567.3	608.0	658.0
140°	387.7	391.0	404.2	421.7	442.4	472.0	503.8	536.7	571.7	608.9	652.7
142.5°	399.9	402.4	414.6	432.2	452.1	479.9	509.9	541.0	574.3	609.8	648.4
145°	418.4	420.6	431.5	446.9	466.6	491.7	520.2	547.6	577.2	608.9	641.8
147.5°	437.6	438.9	448.4	462.6	479.7	501.8	526.8	551.6	578.2	606.1	635.0
150°	449.0	451.2	458.9	473.2	488.4	507.1	531.1	554.2	578.2	603.4	629.7
152.5°	461.3	462.6	469.4	481.9	496.3	513.2	535.6	555.9	577.4	599.9	623.6
155°	477.5	477.5	484.1	495.0	506.0	521.3	539.9	557.4	575.0	593.6	613.3
157.5°	492.0	491.7	497.0	506.4	516.0	527.6	543.7	558.6	572.1	587.0	603.7
160°	501.6	500.5	504.9	512.6	521.3	531.1	545.4	558.6	569.5	582.7	595.8
162.5°	509.4	508.4	512.7	519.5	526.6	534.7	547.1	557.7	566.8	577.4	588.8
165°	521.3	519.2	522.5	527.9	532.3	538.9	547.6	556.4	562.9	569.5	578.2
167.5°	529.2	528.1	530.1	533.1	536.2	540.4	547.6	553.7	556.8	561.8	568.0
170°	534.4	533.4	534.4	536.7	538.9	542.2	547.6	552.0	554.2	557.4	561.8
172.5°	538.0	536.0	537.1	539.2	540.5	542.2	546.7	550.3	550.6	552.2	555.7
175°	542.2	539.9	541.0	542.2	542.2	542.2	545.4	547.6	546.5	546.5	547.6
177.5°	544.1	542.3	542.3	543.2	542.3	542.3	544.1	545.0	543.2	543.2	544.1
180°	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1233.8	1235.5	1237.2	1238.0	1237.8	1237.7	1237.5	1237.3
5°	1227.6	1229.5	1231.4	1232.3	1232.1	1231.9	1231.6	1231.4
7.5°	1215.1	1217.0	1218.9	1219.7	1219.6	1219.4	1219.1	1218.9
10°	1204.6	1206.4	1208.1	1208.8	1208.6	1208.3	1208.2	1208.0
12.5°	1190.5	1191.9	1193.4	1194.0	1194.0	1193.9	1193.9	1193.8
15°	1166.1	1167.2	1168.3	1168.8	1168.8	1168.8	1168.8	1168.8
17.5°	1137.6	1139.0	1140.3	1140.5	1139.3	1138.3	1137.2	1136.1
20°	1116.1	1117.6	1119.1	1119.3	1118.2	1117.1	1116.1	1114.9
22.5°	1091.5	1092.5	1093.5	1093.6	1092.9	1092.1	1091.4	1090.7
25°	1052.2	1052.6	1053.1	1052.9	1052.3	1051.7	1051.0	1050.4
27.5°	1011.0	1011.1	1011.2	1010.9	1010.2	1009.6	1008.9	1008.2
30°	981.0	980.5	980.1	979.6	978.9	978.3	977.6	976.9
32.5°	950.5	949.7	949.0	947.9	946.8	945.6	944.4	943.3
35°	903.3	902.2	901.2	899.8	898.0	896.3	894.5	892.8
37.5°	853.7	852.1	850.5	849.1	848.2	847.2	846.2	845.2
40°	819.4	817.4	815.4	814.1	813.4	812.8	812.2	811.5
42.5°	785.2	783.4	781.7	780.2	779.3	778.3	777.2	776.3
45°	734.8	732.2	729.6	727.9	727.4	726.7	726.0	725.4
47.5°	681.6	679.0	676.4	674.3	672.8	671.3	669.7	668.2
50°	645.3	642.4	639.6	637.4	635.9	634.4	632.9	631.4
52.5°	610.0	607.5	605.0	602.9	601.2	599.6	597.9	596.2
55°	555.1	553.1	551.1	549.4	547.8	546.3	544.8	543.3
57.5°	500.5	497.9	495.4	493.7	492.9	492.1	491.3	490.4
60°	463.5	461.4	459.2	457.3	455.8	454.3	452.8	451.3
62.5°	428.0	425.7	423.3	421.5	420.4	419.1	418.0	416.8
65°	372.0	370.0	368.1	366.6	365.8	365.0	364.0	363.2
67.5°	318.6	316.9	315.3	314.1	313.7	313.1	312.5	312.1
70°	283.2	281.9	280.6	279.6	278.6	277.8	276.9	276.1
72.5°	250.0	248.5	247.0	245.8	245.0	244.1	243.3	242.3
75°	198.4	197.7	197.1	196.3	195.5	194.5	193.7	192.8
77.5°	151.2	150.7	150.3	149.9	149.2	148.6	148.1	147.4
80°	120.9	120.7	120.6	120.2	119.8	119.3	118.9	118.5
82.5°	92.4	92.0	91.6	91.4	91.3	91.2	91.1	91.0
85°	54.4	54.2	53.9	53.6	53.2	52.8	52.3	51.8
87.5°	24.3	24.5	24.7	25.0	24.7	24.3	24.2	23.8
90°	19.7	20.8	21.9	24.1	24.1	24.1	25.2	25.2
92.5°	194.1	140.8	106.0	89.8	75.8	73.1	71.6	69.8
95°	787.4	620.9	486.3	394.3	316.5	283.6	274.9	257.4
97.5°	1172.7	1056.0	924.8	796.8	729.2	667.9	636.1	622.1
100°	1347.1	1293.5	1180.6	1066.7	991.2	912.3	871.8	854.2
102.5°	1405.8	1438.9	1384.8	1307.7	1226.8	1170.7	1126.7	1113.6
105°	1371.2	1521.3	1569.4	1557.4	1522.3	1486.2	1464.2	1451.1
107.5°	1247.6	1447.8	1571.6	1628.8	1646.5	1646.3	1639.1	1630.3
110°	1156.5	1364.6	1519.0	1612.1	1661.4	1682.2	1689.9	1689.9



TEST NUMBER: P333249-830

CATALOG NUMBER: S125DIP-S850D1205U830-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1084.7	1282.2	1438.4	1548.1	1620.2	1656.0	1675.0	1682.9
115°	994.5	1164.2	1314.2	1433.6	1519.0	1571.6	1602.2	1616.5
117.5°	936.1	1082.5	1211.7	1321.3	1406.7	1461.0	1491.5	1500.2
120°	904.7	1036.0	1156.5	1252.9	1334.0	1386.5	1416.1	1424.8
122.5°	881.0	1002.8	1110.1	1200.3	1272.6	1320.8	1350.4	1358.3
125°	846.6	958.3	1053.6	1132.5	1193.7	1238.7	1262.7	1273.8
127.5°	811.5	915.8	1004.8	1078.6	1134.2	1173.8	1196.7	1201.5
130°	789.7	886.0	971.5	1042.6	1097.4	1133.5	1155.5	1162.0
132.5°	767.7	858.0	935.5	1004.1	1058.9	1095.0	1115.1	1122.6
135°	739.2	814.8	885.0	947.3	995.5	1031.7	1051.4	1058.0
137.5°	715.2	776.3	834.5	887.6	930.7	963.6	981.8	988.9
140°	702.0	753.5	803.9	849.9	890.4	918.9	935.3	940.8
142.5°	690.6	734.2	777.6	817.5	851.9	875.9	891.5	896.1
145°	675.7	709.6	743.7	773.2	799.5	818.1	830.2	834.5
147.5°	661.8	689.3	715.4	737.7	758.6	773.5	780.4	782.4
150°	653.8	678.0	698.7	718.4	734.9	748.0	752.4	753.5
152.5°	645.1	666.6	685.6	701.0	714.7	725.2	729.6	730.8
155°	631.9	649.4	664.8	676.8	687.8	695.4	698.7	699.8
157.5°	618.8	633.2	645.1	654.5	663.0	669.4	672.4	672.2
160°	610.0	620.9	631.9	639.6	647.2	652.7	655.0	653.8
162.5°	600.4	610.5	619.6	626.4	632.4	637.0	637.4	637.2
165°	587.0	594.7	601.2	606.7	611.1	613.3	613.3	613.3
167.5°	574.3	579.4	584.4	588.3	590.5	592.5	591.6	591.4
170°	567.3	570.6	573.9	576.1	578.2	579.4	579.4	578.2
172.5°	559.4	562.7	565.1	566.5	566.8	568.8	567.1	566.0
175°	550.9	550.9	553.1	553.1	553.1	554.2	552.0	550.9
177.5°	545.0	545.8	545.8	545.8	545.0	545.8	543.2	543.2
180°	543.2	543.2	543.2	543.2	543.2	543.2	543.2	543.2

(END OF REPORT)