

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: P333291-927

Luminaire Tested: **S125DIP-S1090D1205U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333291-927  
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-S1090D1205U927-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6804.9 lumens  
Efficiency: N/A  
Efficacy: 104.1 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

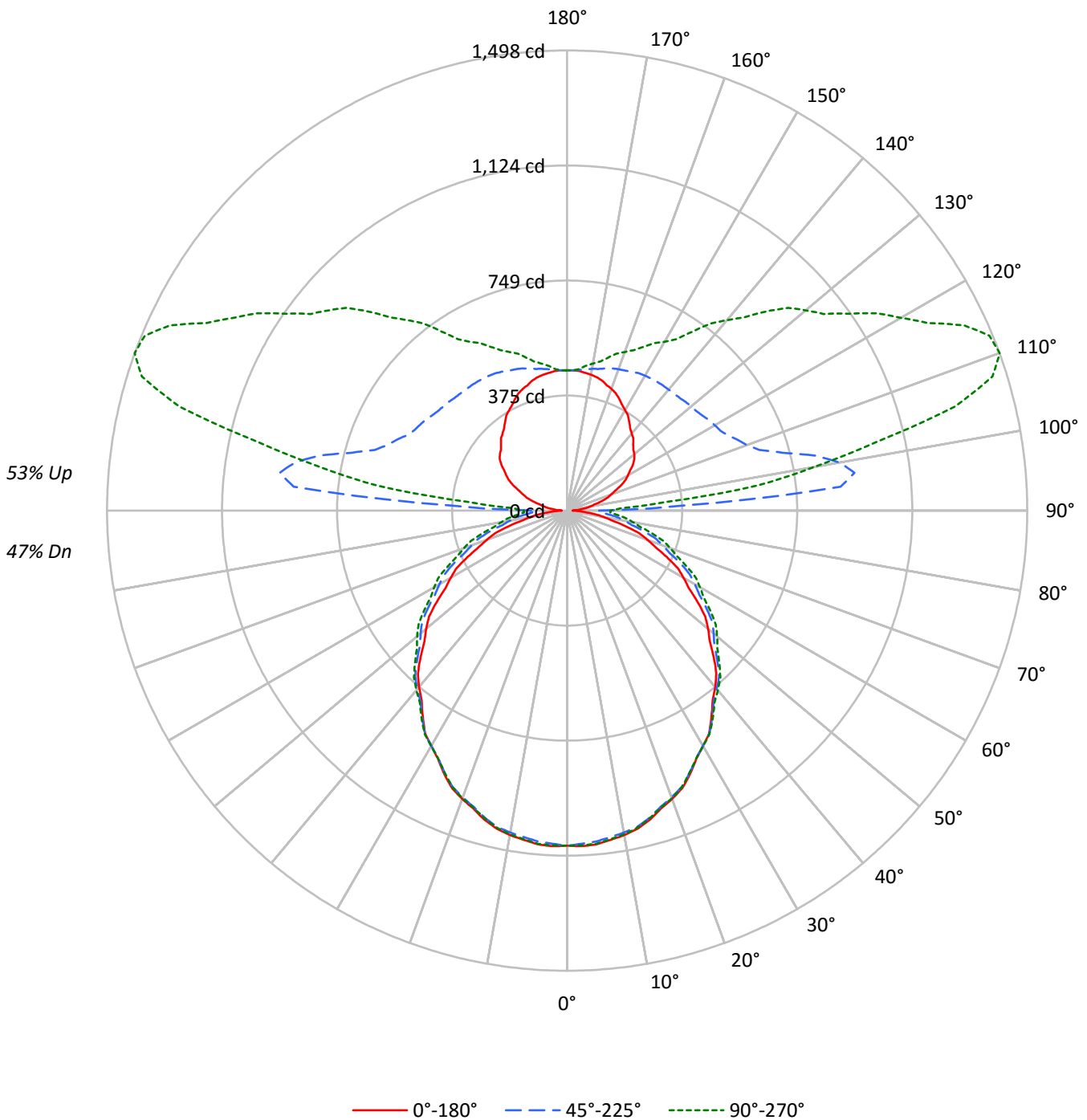
Input Watts (W): 65.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20			20			20			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	98	98	98	98	81	81	81	67	67	67	53	53	53	47
1	96	92	88	84	88	84	81	78	70	68	65	58	56	54	46	45	43	38
2	87	80	73	68	80	73	68	63	61	57	54	50	47	45	40	38	36	31
3	80	70	62	56	73	64	58	52	54	49	45	44	40	37	35	33	30	26
4	73	62	54	47	66	57	50	44	48	42	38	39	35	32	31	28	26	22
5	67	55	46	40	61	51	43	38	43	37	33	35	31	27	28	25	22	19
6	61	49	41	35	56	45	38	33	38	33	28	32	27	24	25	22	20	17
7	57	44	36	30	52	41	34	29	35	29	25	29	24	21	23	20	17	15
8	53	40	32	27	48	37	30	25	31	26	22	26	22	19	21	18	16	13
9	49	37	29	24	45	34	27	22	29	23	20	24	20	17	20	16	14	12
10	46	33	26	21	42	31	25	20	27	21	18	22	18	15	18	15	13	11

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

	0°	45°	90°
0°	7045	7045	7045
5°	7059	6915	6937
10°	7008	6791	6781
15°	6926	6644	6583
20°	6814	6461	6385
25°	6679	6266	6141
30°	6517	6050	5920
35°	6366	5853	5717
40°	6211	5644	5513
45°	6037	5466	5331
50°	5872	5272	5172
55°	5671	5090	4983
60°	5453	4881	4791
65°	5225	4664	4575
70°	4967	4366	4353
75°	4557	4080	4079
80°	4018	3734	3783
85°	3519	3499	3689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.1	1.5
10°-20°	292.8	4.3
20°-30°	435.5	6.4
30°-40°	515.8	7.6
40°-50°	533.3	7.8
50°-60°	491.3	7.2
60°-70°	397.1	5.8
70°-80°	265.9	3.9
80°-90°	140.5	2.1
90°-100°	408.3	6.0
100°-110°	768.5	11.3
110°-120°	705.9	10.4
120°-130°	562.8	8.3
130°-140°	443.7	6.5
140°-150°	329.6	4.8
150°-160°	230.7	3.4
160°-170°	136.0	2.0
170°-180°	44.2	0.7
0°-30°	831.4	12.2
0°-40°	1347.2	19.8
0°-60°	2371.8	34.9
0°-90°	3175.3	46.7
90°-120°	1882.7	27.7
90°-150°	3218.8	47.3
90°-180°	3630.0	53.3
0°-180°	6804.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1091	1088	1081	1089	1089	103
15°	1042	1042	1035	1041	1037	293
25°	946	949	943	947	942	435
35°	819	826	824	826	827	512
45°	675	686	692	699	700	521
55°	519	536	553	564	569	463
65°	357	382	407	423	428	354
75°	197	225	259	279	286	209
85°	59	94	132	154	164	63
90°	18	60	102	131	141	13
95°	44	132	894	471	325	43
105°	114	173	726	1393	1307	120
115°	192	239	577	1215	1426	189
125°	262	306	538	960	1118	232
135°	304	365	518	792	917	236
145°	353	403	512	643	711	221
155°	401	432	499	564	588	185
165°	438	450	479	508	516	123
175°	456	456	459	465	463	43
180°	456	456	456	456	456	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1093.4	1093.0	1092.6	1092.3	1091.9	1091.0	1089.6	1088.3	1087.0	1085.7	1087.0
5°	1090.8	1090.4	1089.9	1089.4	1088.9	1087.8	1086.2	1084.5	1082.8	1081.2	1083.1
7.5°	1081.2	1081.0	1080.8	1080.6	1080.5	1079.5	1077.8	1076.0	1074.4	1072.6	1074.3
10°	1072.6	1072.6	1072.6	1072.6	1072.6	1071.7	1069.8	1067.9	1066.0	1064.1	1065.7
12.5°	1060.7	1060.8	1061.0	1061.2	1061.4	1060.7	1059.2	1057.7	1056.2	1054.6	1056.0
15°	1041.6	1041.9	1042.1	1042.4	1042.6	1041.9	1040.2	1038.6	1036.9	1035.2	1036.6
17.5°	1016.8	1017.2	1017.7	1018.2	1018.7	1018.1	1016.4	1014.8	1013.1	1011.5	1012.6
20°	998.9	999.3	999.8	1000.3	1000.8	1000.1	998.5	996.8	995.1	993.5	994.2
22.5°	978.3	979.1	980.0	980.9	981.8	981.2	979.4	977.6	975.7	973.8	974.7
25°	946.4	947.1	947.8	948.6	949.3	949.0	947.5	946.1	944.7	943.3	944.2
27.5°	910.9	912.0	913.0	914.1	915.1	914.8	913.2	911.6	910.0	908.4	909.0
30°	884.4	885.8	887.2	888.7	890.1	890.1	888.7	887.2	885.8	884.4	884.9
32.5°	860.5	861.7	862.9	864.2	865.4	865.5	864.4	863.4	862.4	861.3	861.8
35°	819.2	820.9	822.5	824.2	825.9	826.3	825.6	824.9	824.2	823.5	824.2
37.5°	777.9	779.4	780.9	782.4	783.9	784.7	784.4	784.2	783.9	783.7	784.7
40°	749.6	751.5	753.4	755.3	757.2	758.1	757.9	757.6	757.4	757.2	758.1
42.5°	718.8	721.4	723.8	726.3	728.7	730.2	730.8	731.3	731.8	732.4	733.5
45°	674.8	677.4	680.0	682.6	685.2	687.1	688.3	689.5	690.7	691.9	693.6
47.5°	629.7	632.1	634.5	636.9	639.4	641.6	643.6	645.7	647.8	649.7	652.2
50°	598.9	601.5	604.1	606.7	609.3	612.0	614.6	617.2	619.8	622.4	625.0
52.5°	566.3	569.6	572.7	575.9	579.1	582.3	585.5	588.7	591.8	595.0	597.9
55°	518.6	522.4	526.2	530.0	533.9	537.7	541.5	545.3	549.1	552.9	555.5
57.5°	469.9	474.4	479.0	483.6	488.1	492.7	497.0	501.4	505.7	510.1	513.1
60°	437.4	442.1	446.9	451.6	456.4	461.1	465.9	470.6	475.4	480.1	483.7
62.5°	405.8	410.5	415.3	420.0	424.8	429.7	434.8	440.0	445.1	450.2	454.2
65°	357.2	362.7	368.1	373.6	379.1	384.6	390.3	396.0	401.7	407.4	411.0
67.5°	311.4	316.7	321.9	327.3	332.5	338.0	343.9	349.7	355.5	361.2	365.6
70°	278.1	283.5	289.0	294.5	299.9	305.7	311.9	318.1	324.2	330.4	334.9
72.5°	245.6	251.2	256.8	262.5	268.2	274.3	281.1	287.9	294.6	301.3	306.3
75°	196.8	203.0	209.1	215.3	221.5	228.4	236.0	243.6	251.2	258.8	263.6
77.5°	150.0	157.1	164.2	171.3	178.5	185.7	193.0	200.3	207.6	214.9	220.1
80°	120.8	127.9	135.1	142.2	149.3	156.9	165.0	173.1	181.2	189.3	194.5
82.5°	94.3	101.8	109.3	116.8	124.4	132.2	140.5	148.8	157.1	165.3	170.4
85°	58.8	66.6	74.5	82.3	90.2	98.2	106.5	114.9	123.2	131.5	136.7
87.5°	33.6	41.4	49.3	57.3	65.3	73.4	81.8	90.2	98.5	106.9	112.6
90°	18.1	26.5	36.0	45.5	54.9	64.6	73.6	83.5	92.5	102.4	108.8
92.5°	26.6	36.0	50.9	69.2	92.1	126.7	185.2	277.8	377.6	381.0	329.8
95°	44.3	51.4	65.0	81.2	107.7	156.2	262.8	473.3	735.5	893.6	881.4
97.5°	63.1	69.7	80.4	96.1	119.9	156.5	229.4	385.6	659.2	943.6	1087.5
100°	76.2	83.0	91.7	106.8	129.3	163.2	224.2	351.5	591.0	899.6	1134.7
102.5°	90.8	96.5	104.1	119.5	140.1	173.1	228.0	335.9	539.2	826.2	1100.2
105°	113.7	117.5	125.9	138.9	157.4	188.6	236.2	325.3	486.2	726.2	995.1
107.5°	135.9	141.0	148.6	159.4	177.9	206.2	252.2	329.2	461.4	656.4	889.1
110°	152.0	156.7	163.2	174.4	191.0	219.7	264.1	334.3	452.3	622.8	828.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	169.0	173.1	178.3	188.9	204.9	232.5	275.2	341.5	449.1	601.7	781.6
115°	192.3	195.8	200.3	210.2	225.7	252.6	292.9	352.4	446.9	577.4	729.9
117.5°	213.4	217.2	221.3	230.7	247.4	273.1	311.2	365.7	448.3	562.9	696.7
120°	228.1	231.6	236.0	244.9	261.3	287.4	325.1	374.8	451.1	555.1	677.9
122.5°	242.7	245.1	248.3	257.0	274.4	300.2	337.7	385.0	453.0	548.0	661.0
125°	262.0	263.6	268.0	276.0	293.3	319.5	354.6	398.9	457.1	538.2	637.8
127.5°	276.2	278.8	284.4	294.7	313.0	338.7	371.9	412.3	462.8	531.1	616.0
130°	285.8	288.4	295.5	307.2	326.3	351.7	383.6	421.9	466.7	527.0	602.2
132.5°	292.3	295.7	304.5	317.9	337.9	363.1	394.3	429.6	470.6	523.6	589.9
135°	304.0	307.5	318.3	332.8	351.9	377.5	407.7	439.7	475.4	518.5	574.1
137.5°	318.9	321.5	331.6	346.2	365.0	390.9	417.6	447.5	480.7	515.8	560.5
140°	326.9	329.7	340.7	355.5	373.0	397.9	424.8	452.7	482.4	513.9	553.3
142.5°	337.2	339.1	349.2	363.7	380.2	403.6	428.9	455.0	483.1	512.9	547.6
145°	352.7	354.3	363.3	375.9	392.2	413.3	437.2	460.3	485.1	511.7	540.6
147.5°	367.8	368.9	376.8	388.8	403.1	421.8	442.8	463.6	486.0	509.4	534.1
150°	377.4	379.2	385.7	397.7	410.5	426.2	446.4	465.8	486.0	507.2	529.3
152.5°	387.7	388.8	394.5	405.0	417.2	431.3	450.1	467.2	485.3	504.2	524.1
155°	401.3	401.3	406.9	416.1	425.2	438.2	453.8	468.5	483.2	498.9	515.5
157.5°	413.5	413.3	417.7	425.6	433.7	443.5	456.9	469.4	480.9	493.4	507.4
160°	421.6	420.6	424.4	430.8	438.2	446.4	458.4	469.4	478.6	489.7	500.7
162.5°	428.2	427.3	430.9	436.7	442.6	449.4	459.9	468.7	476.4	485.3	494.9
165°	438.2	436.3	439.1	443.7	447.3	452.9	460.3	467.6	473.1	478.6	486.0
167.5°	444.8	443.9	445.5	448.1	450.7	454.2	460.3	465.4	467.9	472.2	477.4
170°	449.2	448.3	449.2	451.1	452.9	455.7	460.3	463.9	465.8	468.5	472.2
172.5°	452.2	450.5	451.4	453.2	454.3	455.7	459.5	462.5	462.8	464.1	467.1
175°	455.7	453.8	454.7	455.7	455.7	455.7	458.4	460.3	459.3	459.3	460.3
177.5°	457.3	455.8	455.8	456.5	455.8	455.8	457.3	458.0	456.5	456.5	457.3
180°	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1088.3	1089.6	1091.0	1091.5	1091.4	1091.2	1091.0	1090.8
5°	1085.0	1086.9	1088.8	1089.6	1089.4	1089.2	1088.9	1088.7
7.5°	1075.9	1077.6	1079.3	1080.0	1079.7	1079.5	1079.3	1079.0
10°	1067.4	1069.1	1070.7	1071.4	1071.2	1071.0	1070.7	1070.5
12.5°	1057.2	1058.5	1059.8	1060.1	1059.5	1058.9	1058.3	1057.6
15°	1038.1	1039.5	1040.9	1041.2	1040.2	1039.3	1038.3	1037.4
17.5°	1013.7	1014.7	1015.8	1016.1	1015.5	1014.9	1014.4	1013.8
20°	994.9	995.6	996.3	996.7	996.7	996.7	996.7	996.7
22.5°	975.7	976.5	977.4	977.6	977.0	976.4	975.9	975.3
25°	945.2	946.1	947.1	946.9	945.7	944.5	943.3	942.1
27.5°	909.7	910.4	911.0	911.2	910.7	910.3	909.8	909.4
30°	885.3	885.8	886.3	886.5	886.2	886.0	885.7	885.5
32.5°	862.3	862.8	863.2	863.3	863.1	862.8	862.6	862.4
35°	824.9	825.6	826.3	826.6	826.6	826.6	826.6	826.6
37.5°	785.6	786.6	787.5	787.9	787.8	787.7	787.6	787.5
40°	759.1	760.0	761.0	761.7	762.2	762.6	763.1	763.6
42.5°	734.6	735.8	736.9	737.5	737.6	737.7	737.8	737.9
45°	695.2	696.9	698.5	699.5	699.7	700.0	700.2	700.4
47.5°	654.7	657.0	659.5	660.9	661.5	662.0	662.5	663.1
50°	627.6	630.3	632.9	634.5	635.3	636.0	636.7	637.4
52.5°	600.6	603.4	606.3	607.9	608.4	609.0	609.5	610.0
55°	558.1	560.7	563.3	565.1	566.1	567.0	568.0	568.9
57.5°	516.1	519.1	522.1	523.9	524.7	525.4	526.1	526.8
60°	487.3	490.8	494.4	496.5	497.3	498.0	498.7	499.4
62.5°	458.1	462.1	466.0	468.4	469.4	470.2	471.1	472.1
65°	414.5	418.1	421.7	424.0	424.9	425.9	426.8	427.8
67.5°	369.9	374.2	378.6	381.4	382.5	383.8	385.0	386.3
70°	339.5	344.0	348.5	351.5	352.9	354.3	355.8	357.2
72.5°	311.2	316.1	320.9	323.9	325.0	326.0	327.0	328.1
75°	268.3	273.1	277.8	280.7	281.9	283.1	284.3	285.5
77.5°	225.4	230.6	235.8	238.9	239.9	240.8	241.8	242.7
80°	199.7	204.9	210.2	213.3	214.2	215.2	216.1	217.1
82.5°	175.4	180.5	185.4	188.9	190.6	192.3	194.0	195.7
85°	142.0	147.2	152.4	156.0	157.9	159.8	161.7	163.6
87.5°	118.2	123.8	129.5	133.4	135.1	136.7	138.6	140.3
90°	115.2	121.6	127.9	133.4	135.1	136.7	139.3	140.9
92.5°	257.9	218.5	194.5	184.3	174.2	173.6	174.0	174.2
95°	750.4	615.7	507.7	433.8	370.1	344.1	338.4	325.4
97.5°	1068.3	975.3	870.0	765.7	710.4	660.5	635.5	625.3
100°	1210.6	1170.5	1080.7	988.2	926.1	861.3	828.6	815.3
102.5°	1256.2	1288.7	1248.1	1186.4	1119.9	1074.2	1038.6	1029.0
105°	1220.8	1351.6	1396.9	1390.0	1362.2	1333.5	1316.7	1307.3
107.5°	1111.7	1284.7	1393.4	1444.5	1460.9	1462.2	1457.6	1451.8
110°	1031.3	1210.7	1345.0	1426.3	1469.4	1488.6	1496.7	1498.3





TEST NUMBER: P333291-927

CATALOG NUMBER: S125DIP-S1090D1205U927-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	967.2	1137.5	1273.1	1368.3	1430.5	1462.2	1479.9	1488.2
115°	886.1	1033.0	1163.4	1266.6	1339.8	1385.4	1412.6	1426.0
117.5°	831.5	958.5	1071.2	1166.0	1239.4	1286.7	1313.9	1322.9
120°	801.5	916.1	1021.4	1105.1	1174.6	1220.2	1246.5	1255.3
122.5°	777.8	884.1	978.1	1056.6	1118.8	1160.7	1187.0	1195.1
125°	743.7	841.5	925.3	994.1	1046.8	1085.8	1107.2	1117.6
127.5°	708.8	799.9	878.2	942.7	990.9	1025.6	1046.1	1051.5
130°	687.5	771.7	846.9	908.9	956.2	987.8	1007.3	1014.1
132.5°	665.6	744.8	813.3	873.1	920.0	951.5	969.4	976.7
135°	636.0	702.7	764.7	819.3	860.9	892.6	910.3	917.0
137.5°	611.4	665.6	717.3	763.7	801.0	829.6	845.7	852.8
140°	597.4	643.3	688.2	728.6	763.7	788.5	803.4	808.9
142.5°	585.3	624.2	662.9	698.0	727.9	749.1	763.1	767.9
145°	570.3	600.0	629.8	655.7	678.7	695.3	706.4	711.1
147.5°	556.9	580.5	602.8	621.9	639.8	652.8	659.2	661.2
150°	549.5	569.8	587.2	604.0	618.0	629.3	633.2	634.4
152.5°	542.2	560.2	576.2	589.1	600.8	609.7	613.4	614.3
155°	531.1	545.8	558.7	568.9	578.1	584.5	587.2	588.2
157.5°	520.1	532.2	542.2	550.1	557.2	562.6	565.1	565.0
160°	512.7	521.9	531.1	537.6	544.0	548.6	550.5	549.5
162.5°	504.6	513.1	520.8	526.5	531.5	535.4	535.8	535.5
165°	493.4	499.8	505.3	509.9	513.7	515.5	515.5	515.5
167.5°	482.7	487.0	491.2	494.5	496.3	498.0	497.3	497.1
170°	476.8	479.6	482.4	484.2	486.0	487.0	487.0	486.0
172.5°	470.2	472.9	475.0	476.1	476.4	478.1	476.7	475.7
175°	463.0	463.0	464.9	464.9	464.9	465.8	463.9	463.0
177.5°	458.0	458.8	458.8	458.8	458.0	458.8	456.5	456.5
180°	456.5	456.5	456.5	456.5	456.5	456.5	456.5	456.5

(END OF REPORT)