

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: P333291-930

Luminaire Tested: **S125DIP-S1090D1205U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333291-930  
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-S1090D1205U930-4F0-1E-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**

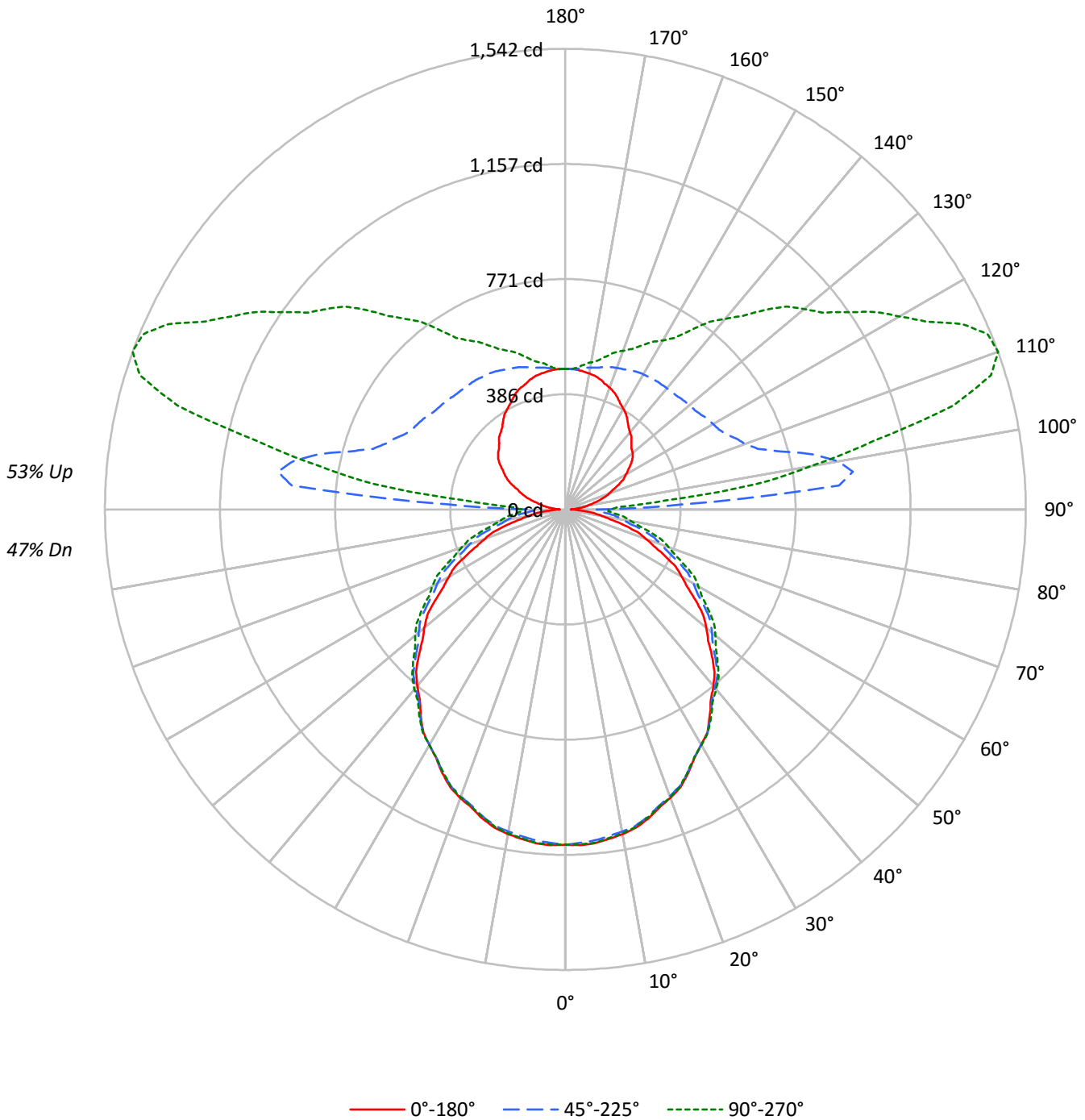
Lumens per Lamp: N/A  
Luminaire Lumens: 7003.5 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

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	
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°	7251	7251	7251
5°	7265	7116	7139
10°	7213	6989	6979
15°	7128	6837	6775
20°	7012	6650	6572
25°	6874	6448	6320
30°	6707	6226	6092
35°	6552	6023	5884
40°	6393	5809	5674
45°	6214	5626	5487
50°	6043	5427	5322
55°	5837	5239	5128
60°	5611	5024	4931
65°	5377	4800	4709
70°	5112	4494	4480
75°	4688	4200	4198
80°	4134	3842	3893
85°	3621	3600	3798



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	1.5
10°-20°	301.3	4.3
20°-30°	448.2	6.4
30°-40°	530.9	7.6
40°-50°	548.9	7.8
50°-60°	505.6	7.2
60°-70°	408.7	5.8
70°-80°	273.7	3.9
80°-90°	144.5	2.1
90°-100°	420.2	6.0
100°-110°	790.9	11.3
110°-120°	726.5	10.4
120°-130°	579.2	8.3
130°-140°	456.7	6.5
140°-150°	339.2	4.8
150°-160°	237.4	3.4
160°-170°	139.9	2.0
170°-180°	45.5	0.7
0°-30°	855.7	12.2
0°-40°	1386.5	19.8
0°-60°	2441.0	34.9
0°-90°	3267.9	46.7
90°-120°	1937.6	27.7
90°-150°	3312.7	47.3
90°-180°	3736.0	53.3
0°-180°	7003.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1123	1120	1113	1121	1120	106
15°	1072	1073	1065	1071	1068	302
25°	974	977	971	975	970	448
35°	843	850	848	851	851	527
45°	694	706	712	719	721	536
55°	534	551	569	581	586	477
65°	368	393	419	435	440	365
75°	202	232	266	287	294	215
85°	60	97	135	159	168	64
90°	19	61	105	134	145	14
95°	46	136	920	484	335	44
105°	117	178	747	1434	1346	123
115°	198	246	594	1250	1468	195
125°	270	315	554	988	1150	239
135°	313	375	534	815	944	243
145°	363	414	527	662	732	227
155°	413	444	514	580	605	190
165°	451	463	493	522	530	127
175°	469	469	473	478	476	45
180°	470	470	470	470	470	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1125.3	1124.9	1124.5	1124.1	1123.7	1122.8	1121.4	1120.1	1118.8	1117.4	1118.8
5°	1122.7	1122.2	1121.7	1121.2	1120.7	1119.6	1117.9	1116.1	1114.4	1112.7	1114.7
7.5°	1112.7	1112.6	1112.3	1112.1	1112.0	1111.0	1109.2	1107.4	1105.7	1103.9	1105.6
10°	1103.9	1103.9	1103.9	1103.9	1103.9	1102.9	1101.0	1099.0	1097.1	1095.1	1096.8
12.5°	1091.6	1091.8	1092.0	1092.2	1092.4	1091.7	1090.1	1088.6	1087.0	1085.4	1086.8
15°	1072.0	1072.3	1072.5	1072.8	1073.0	1072.3	1070.6	1068.9	1067.1	1065.4	1066.9
17.5°	1046.4	1046.9	1047.4	1047.9	1048.4	1047.8	1046.1	1044.4	1042.7	1041.0	1042.1
20°	1028.0	1028.5	1029.0	1029.5	1030.0	1029.3	1027.6	1025.9	1024.2	1022.5	1023.2
22.5°	1006.8	1007.7	1008.6	1009.5	1010.4	1009.8	1008.0	1006.1	1004.1	1002.2	1003.1
25°	974.0	974.8	975.5	976.2	977.0	976.6	975.2	973.7	972.2	970.8	971.8
27.5°	937.5	938.6	939.6	940.8	941.8	941.5	939.9	938.2	936.5	934.9	935.6
30°	910.2	911.7	913.1	914.6	916.1	916.1	914.6	913.1	911.7	910.2	910.7
32.5°	885.6	886.8	888.1	889.4	890.6	890.7	889.7	888.6	887.5	886.5	887.0
35°	843.1	844.8	846.5	848.2	849.9	850.4	849.7	849.0	848.2	847.5	848.2
37.5°	800.6	802.2	803.7	805.3	806.8	807.6	807.3	807.1	806.8	806.6	807.6
40°	771.5	773.5	775.4	777.4	779.3	780.2	780.0	779.8	779.5	779.3	780.2
42.5°	739.8	742.4	744.9	747.5	750.0	751.5	752.1	752.6	753.2	753.7	754.9
45°	694.5	697.2	699.9	702.5	705.2	707.2	708.4	709.6	710.9	712.1	713.8
47.5°	648.1	650.5	653.1	655.5	658.0	660.3	662.4	664.6	666.7	668.7	671.2
50°	616.4	619.1	621.7	624.4	627.1	629.8	632.5	635.2	637.9	640.6	643.3
52.5°	582.9	586.2	589.5	592.7	596.0	599.2	602.6	605.8	609.1	612.4	615.3
55°	533.8	537.7	541.6	545.5	549.4	553.3	557.3	561.2	565.1	569.0	571.7
57.5°	483.6	488.3	493.0	497.7	502.4	507.0	511.5	516.0	520.5	525.0	528.1
60°	450.1	455.0	459.9	464.8	469.7	474.6	479.5	484.4	489.3	494.2	497.8
62.5°	417.6	422.5	427.4	432.3	437.2	442.2	447.5	452.8	458.1	463.3	467.4
65°	367.6	373.2	378.9	384.5	390.1	395.8	401.7	407.6	413.4	419.3	423.0
67.5°	320.5	326.0	331.3	336.8	342.2	347.9	353.9	359.9	365.8	371.8	376.3
70°	286.2	291.8	297.4	303.0	308.7	314.6	321.0	327.3	333.7	340.1	344.7
72.5°	252.7	258.5	264.3	270.2	276.0	282.3	289.3	296.3	303.2	310.1	315.2
75°	202.5	208.9	215.2	221.6	228.0	235.1	242.9	250.7	258.5	266.4	271.3
77.5°	154.3	161.7	169.0	176.3	183.7	191.1	198.6	206.2	213.7	221.2	226.6
80°	124.3	131.7	139.0	146.3	153.7	161.5	169.8	178.1	186.5	194.8	200.2
82.5°	97.1	104.8	112.5	120.3	128.0	136.1	144.6	153.1	161.7	170.2	175.4
85°	60.5	68.6	76.6	84.7	92.8	101.1	109.7	118.2	126.8	135.3	140.7
87.5°	34.6	42.6	50.7	58.9	67.2	75.6	84.1	92.8	101.3	110.0	115.9
90°	18.6	27.3	37.0	46.8	56.5	66.4	75.7	85.9	95.2	105.4	112.0
92.5°	27.4	37.1	52.3	71.3	94.8	130.4	190.6	285.9	388.6	392.2	339.4
95°	45.6	52.9	66.9	83.6	110.8	160.8	270.4	487.1	756.9	919.7	907.1
97.5°	64.9	71.7	82.8	98.9	123.4	161.0	236.1	396.8	678.4	971.2	1119.2
100°	78.4	85.4	94.4	109.9	133.1	168.0	230.7	361.7	608.3	925.9	1167.8
102.5°	93.4	99.3	107.1	123.0	144.2	178.1	234.6	345.7	555.0	850.4	1132.3
105°	117.0	120.9	129.6	142.9	162.0	194.1	243.1	334.8	500.3	747.4	1024.1
107.5°	139.9	145.1	153.0	164.0	183.1	212.2	259.6	338.8	474.9	675.6	915.0
110°	156.5	161.3	168.0	179.4	196.6	226.1	271.8	344.1	465.5	641.0	852.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	173.9	178.1	183.5	194.4	210.9	239.3	283.2	351.5	462.2	619.3	804.5
115°	198.0	201.5	206.1	216.4	232.3	260.0	301.4	362.7	460.0	594.3	751.2
117.5°	219.6	223.6	227.7	237.4	254.6	281.1	320.2	376.3	461.4	579.4	717.1
120°	234.7	238.3	242.9	252.1	269.0	295.8	334.6	385.7	464.2	571.3	697.7
122.5°	249.8	252.3	255.6	264.5	282.4	309.0	347.6	396.2	466.3	563.9	680.3
125°	269.6	271.3	275.8	284.1	301.8	328.8	364.9	410.6	470.4	553.9	656.4
127.5°	284.3	286.9	292.7	303.3	322.1	348.6	382.8	424.4	476.3	546.6	634.0
130°	294.2	296.8	304.1	316.2	335.8	362.0	394.8	434.2	480.3	542.4	619.8
132.5°	300.8	304.4	313.4	327.2	347.8	373.7	405.8	442.1	484.4	538.9	607.2
135°	312.9	316.5	327.6	342.5	362.2	388.5	419.6	452.5	489.3	533.6	590.8
137.5°	328.2	330.9	341.3	356.3	375.6	402.3	429.8	460.6	494.7	530.8	576.9
140°	336.5	339.3	350.7	365.8	383.8	409.5	437.2	465.9	496.4	528.9	569.5
142.5°	347.1	348.9	359.4	374.3	391.3	415.4	441.4	468.3	497.2	527.9	563.5
145°	363.0	364.6	373.9	386.9	403.7	425.3	450.0	473.7	499.3	526.7	556.4
147.5°	378.5	379.7	387.8	400.1	414.9	434.1	455.7	477.1	500.2	524.2	549.7
150°	388.4	390.3	397.0	409.3	422.5	438.6	459.4	479.4	500.2	522.0	544.7
152.5°	399.0	400.1	406.0	416.9	429.3	443.9	463.3	480.9	499.5	518.9	539.4
155°	413.0	413.0	418.7	428.2	437.7	450.9	467.0	482.2	497.3	513.5	530.5
157.5°	425.6	425.3	429.9	438.1	446.4	456.4	470.3	483.1	494.9	507.8	522.2
160°	433.9	432.9	436.8	443.4	450.9	459.4	471.8	483.1	492.6	504.0	515.4
162.5°	440.7	439.8	443.5	449.4	455.5	462.5	473.3	482.4	490.3	499.5	509.3
165°	450.9	449.1	451.9	456.6	460.4	466.1	473.7	481.3	486.9	492.6	500.2
167.5°	457.8	456.8	458.5	461.1	463.8	467.4	473.7	479.0	481.6	486.0	491.3
170°	462.3	461.4	462.3	464.2	466.1	469.0	473.7	477.4	479.4	482.2	486.0
172.5°	465.4	463.7	464.6	466.4	467.6	469.0	472.9	476.0	476.3	477.7	480.7
175°	469.0	467.0	468.0	469.0	469.0	469.0	471.8	473.7	472.7	472.7	473.7
177.5°	470.7	469.1	469.1	469.9	469.1	469.1	470.7	471.4	469.9	469.9	470.7
180°	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1120.1	1121.4	1122.8	1123.4	1123.2	1123.0	1122.8	1122.7
5°	1116.6	1118.6	1120.5	1121.4	1121.2	1121.0	1120.7	1120.5
7.5°	1107.3	1109.1	1110.8	1111.5	1111.3	1111.0	1110.8	1110.5
10°	1098.5	1100.2	1102.0	1102.7	1102.4	1102.2	1102.0	1101.7
12.5°	1088.1	1089.4	1090.7	1091.0	1090.5	1089.8	1089.2	1088.5
15°	1068.4	1069.8	1071.3	1071.5	1070.6	1069.6	1068.6	1067.6
17.5°	1043.3	1044.3	1045.5	1045.7	1045.1	1044.6	1044.0	1043.4
20°	1023.9	1024.7	1025.4	1025.8	1025.8	1025.8	1025.8	1025.8
22.5°	1004.1	1005.0	1005.9	1006.1	1005.5	1004.9	1004.4	1003.8
25°	972.7	973.7	974.7	974.5	973.3	972.1	970.9	969.6
27.5°	936.2	936.9	937.6	937.8	937.3	936.9	936.4	936.0
30°	911.2	911.7	912.2	912.3	912.1	911.8	911.6	911.3
32.5°	887.5	887.9	888.4	888.5	888.3	888.0	887.8	887.5
35°	849.0	849.7	850.4	850.8	850.8	850.8	850.8	850.8
37.5°	808.5	809.5	810.5	810.9	810.8	810.7	810.6	810.5
40°	781.2	782.2	783.2	783.9	784.4	784.9	785.4	785.9
42.5°	756.0	757.2	758.4	759.0	759.1	759.2	759.4	759.5
45°	715.5	717.2	718.9	719.9	720.2	720.4	720.6	720.9
47.5°	673.8	676.2	678.7	680.2	680.8	681.3	681.8	682.4
50°	646.0	648.7	651.3	653.1	653.8	654.5	655.3	656.0
52.5°	618.2	621.0	623.9	625.7	626.1	626.7	627.3	627.8
55°	574.4	577.1	579.8	581.6	582.6	583.6	584.6	585.5
57.5°	531.2	534.3	537.4	539.2	540.0	540.7	541.4	542.2
60°	501.5	505.2	508.8	511.0	511.8	512.5	513.2	514.0
62.5°	471.5	475.6	479.6	482.1	483.1	484.0	484.9	485.8
65°	426.6	430.3	434.0	436.3	437.3	438.3	439.3	440.3
67.5°	380.7	385.1	389.6	392.5	393.7	395.0	396.2	397.5
70°	349.4	354.0	358.7	361.7	363.2	364.7	366.2	367.6
72.5°	320.2	325.3	330.3	333.4	334.4	335.5	336.6	337.7
75°	276.1	281.0	285.9	288.9	290.2	291.4	292.6	293.8
77.5°	232.0	237.3	242.7	245.9	246.9	247.9	248.8	249.8
80°	205.5	210.9	216.3	219.5	220.5	221.4	222.4	223.4
82.5°	180.5	185.7	190.9	194.4	196.2	197.9	199.7	201.4
85°	146.1	151.5	156.9	160.5	162.5	164.4	166.4	168.4
87.5°	121.6	127.4	133.3	137.3	139.0	140.7	142.7	144.4
90°	118.5	125.1	131.7	137.3	139.0	140.7	143.3	145.0
92.5°	265.5	224.9	200.2	189.7	179.3	178.7	179.1	179.3
95°	772.3	633.7	522.5	446.5	380.9	354.2	348.3	334.9
97.5°	1099.5	1003.7	895.4	788.1	731.2	679.8	654.0	643.5
100°	1245.9	1204.7	1112.2	1017.0	953.1	886.4	852.8	839.1
102.5°	1292.8	1326.3	1284.5	1221.0	1152.6	1105.5	1068.9	1059.0
105°	1256.4	1391.1	1437.6	1430.5	1401.9	1372.4	1355.1	1345.5
107.5°	1144.1	1322.2	1434.0	1486.7	1503.6	1504.9	1500.2	1494.1
110°	1061.4	1246.0	1384.3	1467.9	1512.3	1532.0	1540.3	1542.1





TEST NUMBER: P333291-930

CATALOG NUMBER: S125DIP-S1090D1205U930-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	995.4	1170.7	1310.3	1408.3	1472.3	1504.9	1523.1	1531.6
115°	911.9	1063.2	1197.3	1303.6	1378.9	1425.9	1453.8	1467.6
117.5°	855.7	986.4	1102.4	1200.0	1275.6	1324.3	1352.3	1361.5
120°	824.9	942.8	1051.2	1137.3	1208.9	1255.8	1282.9	1291.9
122.5°	800.5	909.9	1006.7	1087.4	1151.4	1194.6	1221.6	1230.0
125°	765.4	866.0	952.4	1023.1	1077.3	1117.4	1139.5	1150.2
127.5°	729.4	823.3	903.8	970.2	1019.8	1055.5	1076.6	1082.1
130°	707.5	794.3	871.6	935.5	984.1	1016.6	1036.7	1043.7
132.5°	685.0	766.5	837.0	898.5	946.9	979.3	997.7	1005.2
135°	654.6	723.2	787.0	843.2	886.1	918.6	936.9	943.7
137.5°	629.2	685.0	738.3	786.0	824.3	853.8	870.4	877.7
140°	614.8	662.0	708.3	749.9	785.9	811.5	826.8	832.5
142.5°	602.4	642.5	682.2	718.4	749.1	770.9	785.4	790.3
145°	586.9	617.5	648.2	674.8	698.5	715.6	727.0	731.8
147.5°	573.2	597.5	620.4	640.1	658.5	671.9	678.4	680.5
150°	565.6	586.4	604.4	621.6	636.0	647.7	651.7	652.9
152.5°	558.0	576.6	593.0	606.3	618.3	627.5	631.3	632.3
155°	546.6	561.7	575.0	585.5	594.9	601.5	604.4	605.4
157.5°	535.2	547.7	558.0	566.1	573.5	579.0	581.6	581.5
160°	527.7	537.1	546.6	553.3	559.9	564.6	566.6	565.6
162.5°	519.3	528.1	536.0	541.8	547.0	551.0	551.4	551.1
165°	507.8	514.4	520.1	524.8	528.6	530.5	530.5	530.5
167.5°	496.8	501.2	505.5	508.9	510.8	512.5	511.8	511.6
170°	490.7	493.6	496.4	498.3	500.2	501.2	501.2	500.2
172.5°	483.9	486.7	488.9	490.0	490.3	492.0	490.6	489.6
175°	476.5	476.5	478.4	478.4	478.4	479.4	477.4	476.5
177.5°	471.4	472.1	472.1	472.1	471.4	472.1	469.9	469.9
180°	469.9	469.9	469.9	469.9	469.9	469.9	469.9	469.9

(END OF REPORT)