

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: P333291-830

Luminaire Tested: **S125DIP-S1090D1205U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333291-830  
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-S1090D1205U830-4F0-1E-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: 8096.5 lumens  
Efficiency: N/A  
Efficacy: 123.8 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

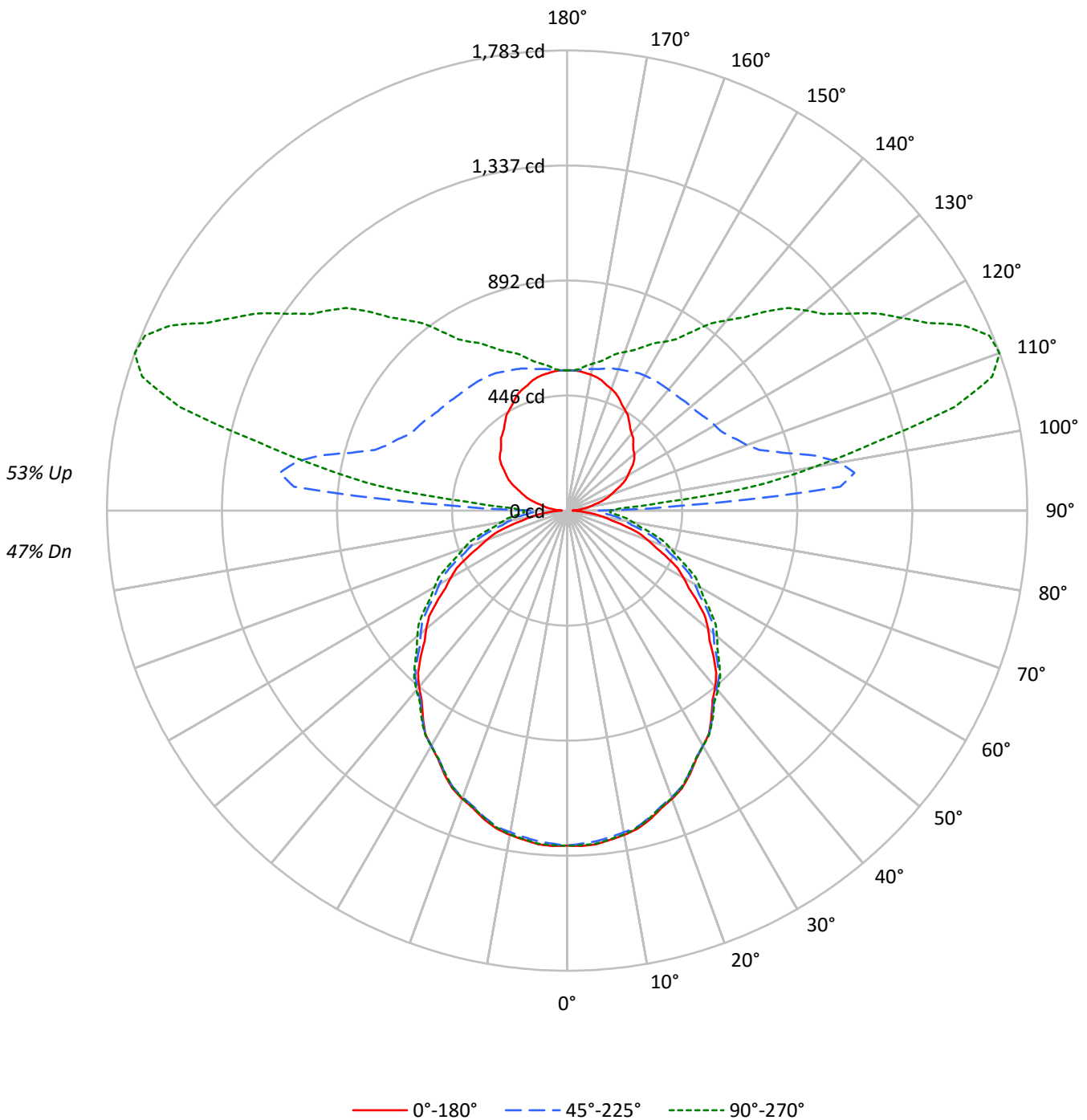
Input Watts (W): 65.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.7	1.5
10°-20°	348.4	4.3
20°-30°	518.1	6.4
30°-40°	613.7	7.6
40°-50°	634.5	7.8
50°-60°	584.5	7.2
60°-70°	472.5	5.8
70°-80°	316.4	3.9
80°-90°	167.1	2.1
90°-100°	485.8	6.0
100°-110°	914.3	11.3
110°-120°	839.9	10.4
120°-130°	669.6	8.3
130°-140°	527.9	6.5
140°-150°	392.2	4.8
150°-160°	274.4	3.4
160°-170°	161.8	2.0
170°-180°	52.6	0.7
0°-30°	989.2	12.2
0°-40°	1602.9	19.8
0°-60°	2821.9	34.9
0°-90°	3777.9	46.7
90°-120°	2240.0	27.7
90°-150°	3829.7	47.3
90°-180°	4319.0	53.3
0°-180°	8096.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	22	71	122	155	168	16
95°	53	157	1063	560	387	51
105°	135	206	864	1658	1556	143
115°	229	285	687	1446	1697	225
125°	312	364	640	1142	1330	276
135°	362	434	617	942	1091	281
145°	420	479	609	765	846	263
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°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	40.0	49.2	58.6	68.1	77.7	87.4	97.3	107.3	117.2	127.1	133.9
90°	21.5	31.6	42.8	54.1	65.3	76.8	87.6	99.3	110.1	121.9	129.5
92.5°	31.7	42.9	60.5	82.4	109.6	150.7	220.4	330.5	449.2	453.4	392.4
95°	52.7	61.2	77.3	96.6	128.1	185.9	312.6	563.2	875.1	1063.2	1048.7
97.5°	75.0	82.9	95.7	114.3	142.7	186.2	273.0	458.7	784.3	1122.8	1293.9
100°	90.7	98.8	109.1	127.1	153.8	194.2	266.7	418.2	703.2	1070.4	1350.1
102.5°	108.0	114.8	123.9	142.2	166.7	205.9	271.3	399.6	641.6	983.1	1309.0
105°	135.3	139.8	149.8	165.2	187.3	224.4	281.1	387.0	578.4	864.0	1183.9
107.5°	161.7	167.8	176.8	189.6	211.7	245.3	300.1	391.7	549.0	781.0	1057.8
110°	180.9	186.4	194.2	207.5	227.2	261.4	314.2	397.8	538.2	741.0	985.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	201.0	205.9	212.2	224.7	243.8	276.6	327.4	406.3	534.3	716.0	930.0
115°	228.8	233.0	238.3	250.2	268.5	300.6	348.5	419.3	531.8	687.0	868.5
117.5°	253.9	258.4	263.3	274.5	294.4	325.0	370.2	435.1	533.4	669.8	829.0
120°	271.4	275.5	280.8	291.4	310.9	342.0	386.8	445.9	536.7	660.4	806.5
122.5°	288.8	291.6	295.5	305.8	326.5	357.2	401.8	458.1	539.0	652.0	786.5
125°	311.7	313.7	318.9	328.4	348.9	380.1	421.9	474.7	543.8	640.4	758.8
127.5°	328.7	331.7	338.4	350.6	372.4	403.0	442.5	490.6	550.6	631.9	732.9
130°	340.1	343.1	351.6	365.5	388.2	418.5	456.4	502.0	555.3	627.1	716.5
132.5°	347.8	351.9	362.3	378.2	402.1	432.1	469.1	511.1	560.0	623.0	701.9
135°	361.7	365.9	378.7	396.0	418.7	449.1	485.0	523.1	565.6	616.9	683.1
137.5°	379.5	382.6	394.5	411.9	434.2	465.1	496.9	532.4	571.9	613.7	666.9
140°	389.0	392.3	405.4	422.9	443.7	473.4	505.5	538.7	573.9	611.4	658.4
142.5°	401.2	403.4	415.5	432.7	452.4	480.2	510.3	541.4	574.8	610.3	651.5
145°	419.6	421.5	432.3	447.2	466.7	491.7	520.2	547.6	577.2	608.9	643.2
147.5°	437.6	438.9	448.4	462.6	479.7	501.8	526.8	551.6	578.2	606.1	635.5
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°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	140.6	147.3	154.1	158.7	160.7	162.7	164.9	166.9
90°	137.0	144.7	152.2	158.7	160.7	162.7	165.7	167.7
92.5°	306.9	260.0	231.4	219.3	207.3	206.6	207.1	207.3
95°	892.8	732.5	604.1	516.1	440.4	409.4	402.7	387.2
97.5°	1271.1	1160.4	1035.1	911.1	845.3	785.9	756.1	743.9
100°	1440.4	1392.7	1285.8	1175.7	1101.8	1024.7	985.9	970.1
102.5°	1494.6	1533.3	1485.0	1411.6	1332.5	1278.1	1235.8	1224.3
105°	1452.5	1608.2	1662.0	1653.8	1620.7	1586.6	1566.6	1555.5
107.5°	1322.7	1528.5	1657.8	1718.7	1738.2	1739.7	1734.3	1727.3
110°	1227.1	1440.5	1600.3	1697.0	1748.3	1771.1	1780.7	1782.7





TEST NUMBER: P333291-830

CATALOG NUMBER: S125DIP-S1090D1205U830-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1150.8	1353.4	1514.8	1628.1	1702.0	1739.7	1760.8	1770.7
115°	1054.2	1229.1	1384.2	1507.0	1594.1	1648.4	1680.7	1696.7
117.5°	989.3	1140.4	1274.5	1387.3	1474.7	1531.0	1563.3	1574.0
120°	953.7	1090.0	1215.2	1314.8	1397.6	1451.8	1483.1	1493.6
122.5°	925.5	1051.9	1163.8	1257.2	1331.2	1381.0	1412.3	1421.9
125°	884.9	1001.2	1101.0	1182.8	1245.5	1291.8	1317.3	1329.7
127.5°	843.3	951.8	1044.9	1121.6	1178.9	1220.2	1244.6	1251.0
130°	817.9	918.2	1007.7	1081.5	1137.6	1175.3	1198.5	1206.5
132.5°	791.9	886.2	967.6	1038.8	1094.7	1132.1	1153.4	1162.1
135°	756.8	836.0	909.8	974.8	1024.4	1062.0	1083.1	1091.0
137.5°	727.5	791.9	853.5	908.7	953.0	987.0	1006.3	1014.6
140°	710.8	765.3	818.9	867.0	908.6	938.2	955.8	962.4
142.5°	696.4	742.7	788.7	830.5	866.0	891.3	908.0	913.6
145°	678.5	713.9	749.3	780.1	807.6	827.3	840.5	846.0
147.5°	662.6	690.7	717.2	740.0	761.3	776.7	784.3	786.7
150°	653.8	678.0	698.7	718.6	735.3	748.8	753.4	754.8
152.5°	645.1	666.6	685.6	701.0	714.8	725.4	729.8	730.9
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)