

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: P333258-935

Luminaire Tested: **S125DIP-S1090D365U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333258-935  
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-S1090D365U935-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

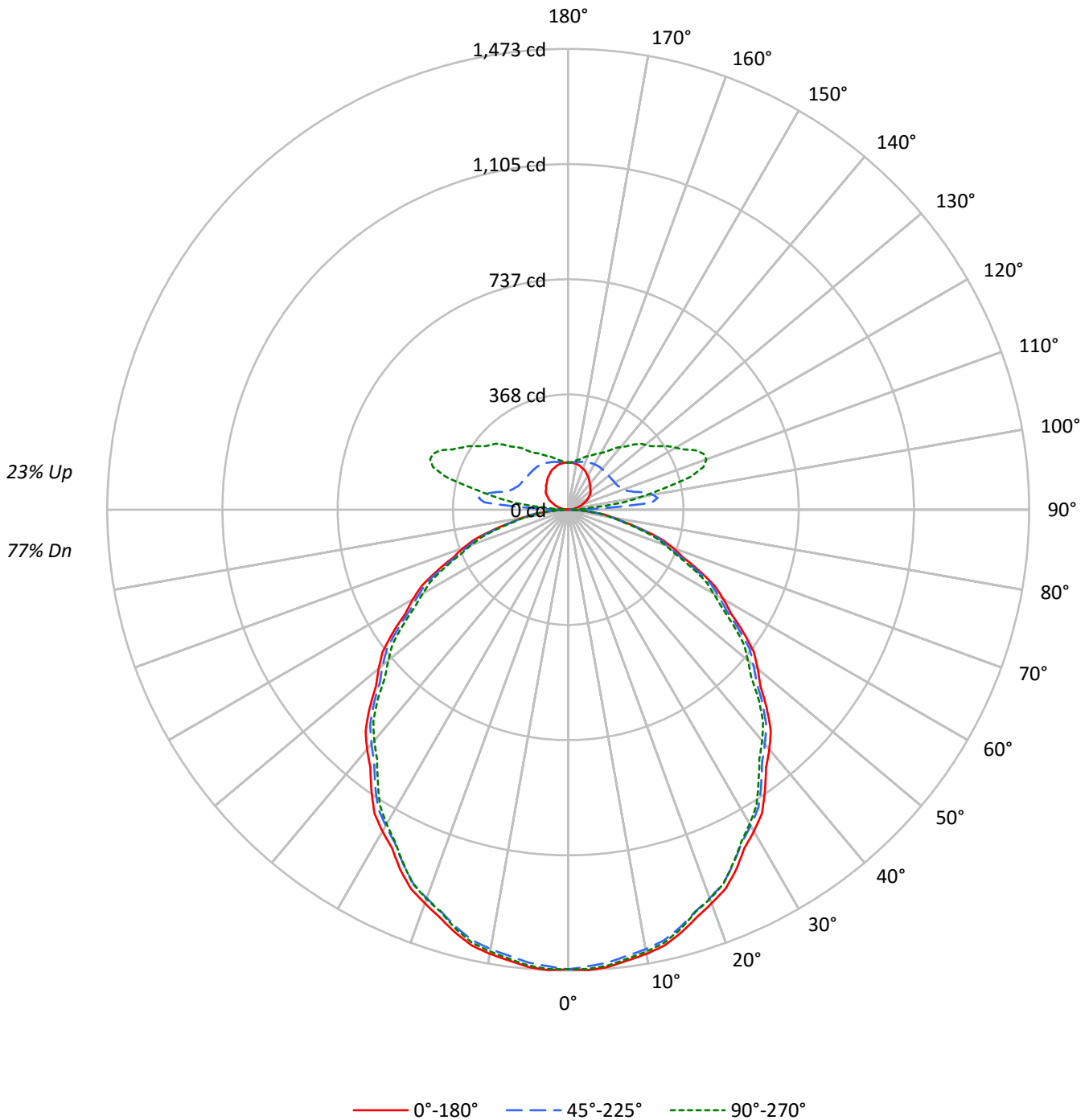
Lumens per Lamp: N/A  
Luminaire Lumens: 4955.7 lumens  
Efficiency: N/A  
Efficacy: 113.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 43.5  
Input Voltage (V): 120  
Input Current (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	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	104	99	95	91	99	95	91	88	86	84	81	79	76	74	72	70	68	65
2	94	87	80	75	90	83	77	72	76	71	67	69	65	62	63	60	57	54
3	86	76	68	62	82	73	66	60	67	61	56	61	56	53	56	52	49	46
4	79	68	59	53	75	65	57	51	59	53	48	54	49	45	50	46	42	39
5	73	60	52	45	69	58	50	44	53	47	42	49	43	39	45	40	37	34
6	67	54	46	40	64	52	44	39	48	41	36	44	39	34	41	36	32	30
7	62	49	41	35	59	47	40	34	44	37	32	40	35	31	37	32	29	27
8	58	45	37	31	55	43	36	30	40	33	29	37	31	27	34	29	26	24
9	54	41	33	28	51	40	32	27	37	30	26	34	29	25	32	27	23	21
10	50	38	30	25	48	37	29	25	34	28	24	32	26	22	29	25	21	19

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

	0°	45°	90°
0°	9489	9489	9489
5°	9510	9419	9479
10°	9452	9353	9406
15°	9349	9240	9279
20°	9203	9082	9099
25°	9045	8896	8888
30°	8850	8694	8651
35°	8642	8476	8358
40°	8427	8241	8123
45°	8195	8026	7867
50°	7941	7766	7533
55°	7696	7473	7264
60°	7401	7177	6921
65°	7051	6820	6589
70°	6717	6409	6190
75°	6119	5916	5712
80°	5449	5359	5229
85°	4735	4824	4565



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.5	2.8
10°-20°	391.3	7.9
20°-30°	577.8	11.7
30°-40°	674.2	13.6
40°-50°	677.1	13.7
50°-60°	594.4	12.0
60°-70°	442.9	8.9
70°-80°	253.2	5.1
80°-90°	74.5	1.5
90°-100°	109.4	2.2
100°-110°	235.2	4.7
110°-120°	220.7	4.5
120°-130°	178.9	3.6
130°-140°	143.5	2.9
140°-150°	108.3	2.2
150°-160°	76.2	1.5
160°-170°	44.9	0.9
170°-180°	14.6	0.3
0°-30°	1107.6	22.4
0°-40°	1781.8	36.0
0°-60°	3053.3	61.6
0°-90°	3823.9	77.2
90°-120°	565.3	11.4
90°-150°	996.0	20.1
90°-180°	1132.0	22.8
0°-180°	4955.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1469	1469	1469	1469	1469	
5°	1467	1464	1453	1463	1462	139
15°	1398	1394	1382	1388	1388	394
25°	1269	1263	1248	1250	1247	584
35°	1096	1091	1075	1069	1060	685
45°	897	892	879	865	861	691
55°	684	679	664	653	645	610
65°	461	458	446	436	431	458
75°	245	243	237	234	229	261
85°	64	65	65	64	62	71
90°	0	3	5	6	7	4
95°	10	30	270	122	72	11
105°	34	48	221	434	403	36
115°	62	74	177	382	449	60
125°	85	100	170	304	354	76
135°	100	120	169	255	294	77
145°	116	133	169	211	232	73
155°	133	143	165	186	194	61
165°	145	149	158	168	170	41
175°	151	151	152	154	153	14
180°	151	151	151	151	151	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2
2.5°	1472.9	1472.3	1471.6	1471.0	1470.4	1469.0	1467.0	1464.9	1462.8	1460.8	1462.8
5°	1466.9	1466.4	1465.9	1465.3	1464.8	1463.3	1460.7	1458.1	1455.5	1452.9	1455.3
7.5°	1453.4	1452.9	1452.3	1451.8	1451.3	1449.6	1446.7	1443.9	1441.1	1438.2	1440.5
10°	1441.3	1440.8	1440.3	1439.8	1439.2	1437.5	1434.7	1431.8	1429.0	1426.2	1428.2
12.5°	1426.4	1425.5	1424.5	1423.6	1422.7	1420.9	1418.2	1415.7	1413.0	1410.3	1412.0
15°	1398.3	1397.5	1396.7	1395.9	1395.2	1393.4	1390.5	1387.7	1384.8	1382.0	1383.3
17.5°	1366.0	1364.9	1363.7	1362.5	1361.4	1359.3	1356.4	1353.5	1350.6	1347.6	1349.2
20°	1339.0	1338.5	1338.0	1337.5	1337.0	1335.0	1331.6	1328.3	1324.9	1321.5	1323.4
22.5°	1312.0	1311.1	1310.2	1309.2	1308.3	1306.2	1303.1	1299.9	1296.8	1293.7	1294.9
25°	1269.3	1268.0	1266.7	1265.4	1264.1	1261.8	1258.4	1255.1	1251.7	1248.4	1248.9
27.5°	1219.3	1218.5	1217.7	1216.9	1216.2	1214.1	1210.6	1207.1	1203.7	1200.2	1200.3
30°	1186.7	1185.9	1185.2	1184.4	1183.6	1181.3	1177.4	1173.5	1169.7	1165.8	1165.3
32.5°	1151.4	1150.2	1149.0	1147.8	1146.7	1144.4	1140.8	1137.4	1133.9	1130.5	1129.5
35°	1096.1	1095.0	1094.0	1093.0	1091.9	1089.6	1086.0	1082.4	1078.7	1075.1	1073.8
37.5°	1038.6	1037.3	1036.0	1034.7	1033.5	1031.1	1027.7	1024.3	1020.9	1017.5	1015.5
40°	999.6	998.3	997.0	995.7	994.5	992.0	988.3	984.7	981.1	977.5	975.2
42.5°	957.8	956.7	955.6	954.5	953.4	951.1	947.4	943.8	940.2	936.6	934.4
45°	897.3	896.3	895.3	894.2	893.2	891.1	888.0	884.9	881.8	878.7	875.6
47.5°	832.2	832.2	832.3	832.4	832.4	830.6	826.9	823.1	819.4	815.7	812.5
50°	790.4	789.6	788.8	788.1	787.3	785.3	782.2	779.1	776.0	772.9	769.6
52.5°	747.6	747.0	746.5	745.9	745.4	743.4	740.1	736.8	733.5	730.1	727.2
55°	683.5	682.7	681.9	681.1	680.4	678.1	674.5	670.9	667.3	663.7	661.3
57.5°	615.8	615.4	615.0	614.6	614.2	612.4	609.3	606.3	603.3	600.2	597.2
60°	573.0	572.0	570.9	569.9	568.9	567.0	564.1	561.3	558.4	555.6	553.0
62.5°	528.4	527.5	526.8	525.9	525.1	523.5	521.0	518.6	516.2	513.8	510.9
65°	461.4	460.9	460.4	459.9	459.3	457.7	454.9	452.0	449.2	446.3	444.0
67.5°	396.6	395.5	394.4	393.3	392.3	390.6	388.5	386.4	384.3	382.2	380.2
70°	355.7	354.4	353.1	351.8	350.5	348.7	346.4	344.1	341.7	339.4	337.9
72.5°	311.1	310.1	309.3	308.4	307.5	306.3	304.9	303.3	301.9	300.3	298.6
75°	245.2	244.7	244.2	243.7	243.1	242.3	241.0	239.7	238.4	237.1	236.3
77.5°	184.6	184.3	184.2	184.0	183.7	183.3	182.5	181.8	181.2	180.4	179.9
80°	146.5	146.5	146.5	146.5	146.5	146.2	145.7	145.2	144.6	144.1	143.9
82.5°	113.0	112.5	112.2	111.8	111.3	111.1	111.0	110.9	110.7	110.6	110.2
85°	63.9	64.1	64.4	64.7	64.9	65.1	65.1	65.1	65.1	65.1	64.8
87.5°	25.1	25.2	25.3	25.5	25.6	25.6	25.5	25.4	25.2	25.1	25.2
90°	0.3	0.6	1.2	1.8	2.4	3.0	3.4	4.0	4.2	4.9	5.2
92.5°	3.7	4.5	7.1	10.8	16.1	25.0	41.6	69.4	99.7	98.1	79.4
95°	10.1	10.3	12.7	16.1	22.8	36.5	69.1	136.0	220.0	269.6	263.8
97.5°	16.7	17.0	18.8	22.1	28.2	38.0	59.5	108.6	196.5	287.9	333.8
100°	21.3	21.9	23.2	26.4	32.3	41.4	59.1	98.6	175.3	274.7	350.9
102.5°	26.4	26.8	27.7	31.3	36.7	45.5	61.2	94.5	159.2	251.7	340.6
105°	34.4	34.4	35.9	38.9	43.8	52.3	65.7	92.8	143.6	220.6	308.0
107.5°	42.2	42.8	44.3	46.8	51.8	59.5	72.4	95.6	137.1	199.2	274.6
110°	47.8	48.4	49.6	52.3	56.9	64.8	77.3	98.3	135.1	189.2	255.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	53.4	54.0	54.9	57.7	62.3	69.9	81.9	101.7	135.1	183.4	241.5
115°	61.5	62.1	63.0	65.7	70.3	77.9	89.2	106.8	136.0	177.1	226.1
117.5°	68.8	69.7	70.7	73.4	78.6	85.9	96.6	112.6	138.0	174.0	216.9
120°	73.6	74.6	75.8	78.5	83.7	91.3	101.9	116.6	140.0	172.5	211.8
122.5°	78.8	79.4	80.4	83.2	88.8	96.4	107.0	120.9	141.6	171.3	207.4
125°	85.2	85.8	87.3	90.1	95.8	103.8	113.8	126.9	144.6	169.8	201.5
127.5°	90.2	91.2	93.1	96.6	102.7	110.6	120.3	132.3	147.7	169.1	196.0
130°	93.4	94.4	96.8	100.7	107.1	115.0	124.4	136.0	149.7	168.6	192.3
132.5°	95.8	97.0	100.0	104.4	111.0	118.9	128.4	139.2	151.9	168.6	189.4
135°	99.8	101.0	104.7	109.5	116.0	124.2	133.5	143.6	154.9	168.6	185.9
137.5°	104.8	105.7	109.1	114.0	120.3	128.7	137.3	146.9	157.6	168.9	182.8
140°	107.7	108.7	112.3	117.2	123.0	131.1	140.0	149.1	158.9	169.2	181.3
142.5°	111.2	111.8	115.2	120.1	125.6	133.4	141.6	150.3	159.5	169.4	180.1
145°	116.2	116.8	119.9	124.2	129.7	136.6	144.6	152.1	160.3	169.2	178.3
147.5°	121.6	121.9	124.6	128.5	133.3	139.4	146.4	153.3	160.7	168.4	176.4
150°	124.8	125.4	127.5	131.5	135.7	140.9	147.6	153.9	160.7	167.6	175.0
152.5°	128.2	128.5	130.4	133.9	137.9	142.6	148.8	154.5	160.4	166.7	173.2
155°	132.7	132.7	134.5	137.5	140.6	144.8	150.0	154.9	159.7	165.0	170.4
157.5°	136.7	136.6	138.1	140.7	143.4	146.6	151.0	155.2	158.9	163.1	167.7
160°	139.4	139.1	140.3	142.4	144.8	147.6	151.5	155.2	158.3	161.9	165.6
162.5°	141.5	141.3	142.5	144.4	146.3	148.5	152.1	155.0	157.5	160.4	163.6
165°	144.8	144.2	145.2	146.6	147.9	149.7	152.1	154.5	156.4	158.3	160.7
167.5°	147.1	146.7	147.3	148.1	149.0	150.2	152.1	153.9	154.7	156.1	157.8
170°	148.5	148.2	148.5	149.1	149.7	150.6	152.1	153.3	153.9	154.9	156.1
172.5°	149.5	149.0	149.2	149.8	150.2	150.6	151.9	152.9	153.0	153.4	154.4
175°	150.6	150.0	150.3	150.6	150.6	150.6	151.5	152.1	151.9	151.9	152.1
177.5°	151.2	150.7	150.7	150.9	150.7	150.7	151.2	151.4	150.9	150.9	151.2
180°	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2	1469.2
2.5°	1464.9	1467.0	1469.0	1470.0	1469.8	1469.6	1469.4	1469.2
5°	1457.6	1459.9	1462.2	1463.3	1463.0	1462.8	1462.5	1462.2
7.5°	1442.8	1445.1	1447.3	1448.4	1448.1	1447.9	1447.6	1447.3
10°	1430.3	1432.4	1434.4	1435.4	1435.1	1434.9	1434.6	1434.3
12.5°	1413.7	1415.3	1416.9	1417.8	1417.7	1417.6	1417.6	1417.6
15°	1384.6	1385.9	1387.2	1387.8	1387.8	1387.8	1387.8	1387.8
17.5°	1350.8	1352.4	1354.0	1354.2	1352.9	1351.6	1350.3	1349.0
20°	1325.2	1327.0	1328.8	1329.0	1327.7	1326.5	1325.2	1323.9
22.5°	1296.1	1297.3	1298.4	1298.6	1297.7	1296.8	1296.0	1295.0
25°	1249.4	1249.9	1250.4	1250.3	1249.5	1248.7	1247.9	1247.2
27.5°	1200.4	1200.5	1200.7	1200.3	1199.5	1198.8	1198.0	1197.2
30°	1164.8	1164.2	1163.7	1163.1	1162.4	1161.6	1160.8	1160.0
32.5°	1128.6	1127.7	1126.8	1125.6	1124.2	1122.8	1121.4	1120.0
35°	1072.5	1071.3	1070.0	1068.3	1066.3	1064.2	1062.1	1060.1
37.5°	1013.7	1011.8	1009.9	1008.3	1007.1	1005.9	1004.7	1003.6
40°	972.8	970.5	968.2	966.6	965.9	965.1	964.3	963.5
42.5°	932.4	930.2	928.2	926.4	925.3	924.1	922.9	921.7
45°	872.5	869.4	866.3	864.4	863.6	862.8	862.0	861.3
47.5°	809.4	806.2	803.1	800.6	798.8	797.0	795.2	793.4
50°	766.2	762.8	759.5	756.9	755.1	753.3	751.5	749.7
52.5°	724.3	721.3	718.4	715.9	713.9	711.9	709.9	707.8
55°	659.0	656.7	654.4	652.3	650.5	648.7	646.9	645.1
57.5°	594.3	591.2	588.2	586.3	585.3	584.3	583.3	582.3
60°	550.4	547.9	545.3	543.0	541.2	539.4	537.6	535.8
62.5°	508.2	505.4	502.6	500.5	499.1	497.7	496.3	494.9
65°	441.7	439.4	437.0	435.3	434.3	433.3	432.2	431.2
67.5°	378.2	376.3	374.3	373.0	372.4	371.8	371.2	370.6
70°	336.3	334.8	333.2	331.9	330.9	329.8	328.8	327.8
72.5°	296.9	295.1	293.3	292.0	290.9	289.9	288.9	287.8
75°	235.6	234.8	234.0	233.1	232.0	231.0	230.0	228.9
77.5°	179.4	179.0	178.6	178.0	177.2	176.5	175.7	175.0
80°	143.6	143.4	143.1	142.7	142.2	141.6	141.1	140.6
82.5°	109.7	109.3	108.8	108.5	108.4	108.3	108.2	108.1
85°	64.6	64.3	64.1	63.6	63.1	62.6	62.1	61.6
87.5°	25.3	25.3	25.4	25.3	24.9	24.5	24.1	23.7
90°	5.5	5.8	6.1	6.7	6.7	6.7	7.0	7.0
92.5°	53.9	39.1	29.4	25.0	21.1	20.3	19.9	19.4
95°	218.8	172.5	135.1	109.5	87.9	78.8	76.4	71.5
97.5°	325.8	293.4	256.9	221.4	202.6	185.5	176.8	172.8
100°	374.3	359.4	328.0	296.4	275.3	253.5	242.2	237.4
102.5°	390.5	399.8	384.8	363.3	340.9	325.3	313.1	309.4
105°	381.0	422.7	436.0	432.7	422.9	412.9	406.8	403.2
107.5°	346.6	402.3	436.6	452.5	457.4	457.4	455.4	453.0
110°	321.3	379.2	422.1	447.9	461.6	467.4	469.5	469.5





TEST NUMBER: P333258-935

CATALOG NUMBER: S125DIP-S1090D365U935-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	301.4	356.3	399.7	430.2	450.1	460.1	465.4	467.6
115°	276.3	323.5	365.2	398.3	422.1	436.6	445.1	449.1
117.5°	260.1	300.7	336.7	367.1	390.8	406.0	414.4	416.8
120°	251.3	287.8	321.3	348.1	370.7	385.2	393.5	395.9
122.5°	244.8	278.6	308.4	333.5	353.6	367.0	375.2	377.4
125°	235.2	266.2	292.7	314.6	331.7	344.1	350.9	353.9
127.5°	225.5	254.4	279.1	299.6	315.1	326.1	332.4	333.8
130°	219.4	246.2	269.9	289.7	304.9	315.0	321.1	322.9
132.5°	213.3	238.4	259.9	279.0	294.2	304.2	309.8	311.9
135°	205.4	226.4	245.9	263.2	276.6	286.6	292.1	293.9
137.5°	198.7	215.7	231.9	246.6	258.6	267.7	272.8	274.7
140°	195.0	209.3	223.3	236.1	247.4	255.3	259.8	261.4
142.5°	191.9	204.0	216.0	227.1	236.7	243.4	247.7	249.0
145°	187.8	197.2	206.6	214.8	222.1	227.3	230.7	231.9
147.5°	183.8	191.5	198.8	205.0	210.8	214.9	216.8	217.4
150°	181.7	188.4	194.2	199.6	204.1	207.8	209.1	209.3
152.5°	179.3	185.2	190.5	194.8	198.5	201.5	202.7	203.0
155°	175.6	180.5	184.7	188.0	191.1	193.2	194.2	194.4
157.5°	171.9	175.9	179.3	181.8	184.3	186.0	186.8	186.8
160°	169.5	172.5	175.6	177.7	179.9	181.3	181.9	181.7
162.5°	166.8	169.6	172.2	174.1	175.7	176.9	177.1	177.0
165°	163.1	165.2	167.0	168.6	169.8	170.4	170.4	170.4
167.5°	159.5	161.0	162.4	163.5	164.1	164.6	164.4	164.3
170°	157.6	158.5	159.5	160.1	160.7	161.0	161.0	160.7
172.5°	155.4	156.4	157.0	157.4	157.5	158.1	157.6	157.2
175°	153.1	153.1	153.7	153.7	153.7	153.9	153.3	153.1
177.5°	151.4	151.6	151.6	151.6	151.4	151.6	150.9	150.9
180°	150.9	150.9	150.9	150.9	150.9	150.9	150.9	150.9

(END OF REPORT)