

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: P333258-940

Luminaire Tested: **S125DIP-S1090D365U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333258-940
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-S1090D365U940-4F0-1E-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: 5132.4 lumens
Efficiency: N/A
Efficacy: 118.0 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

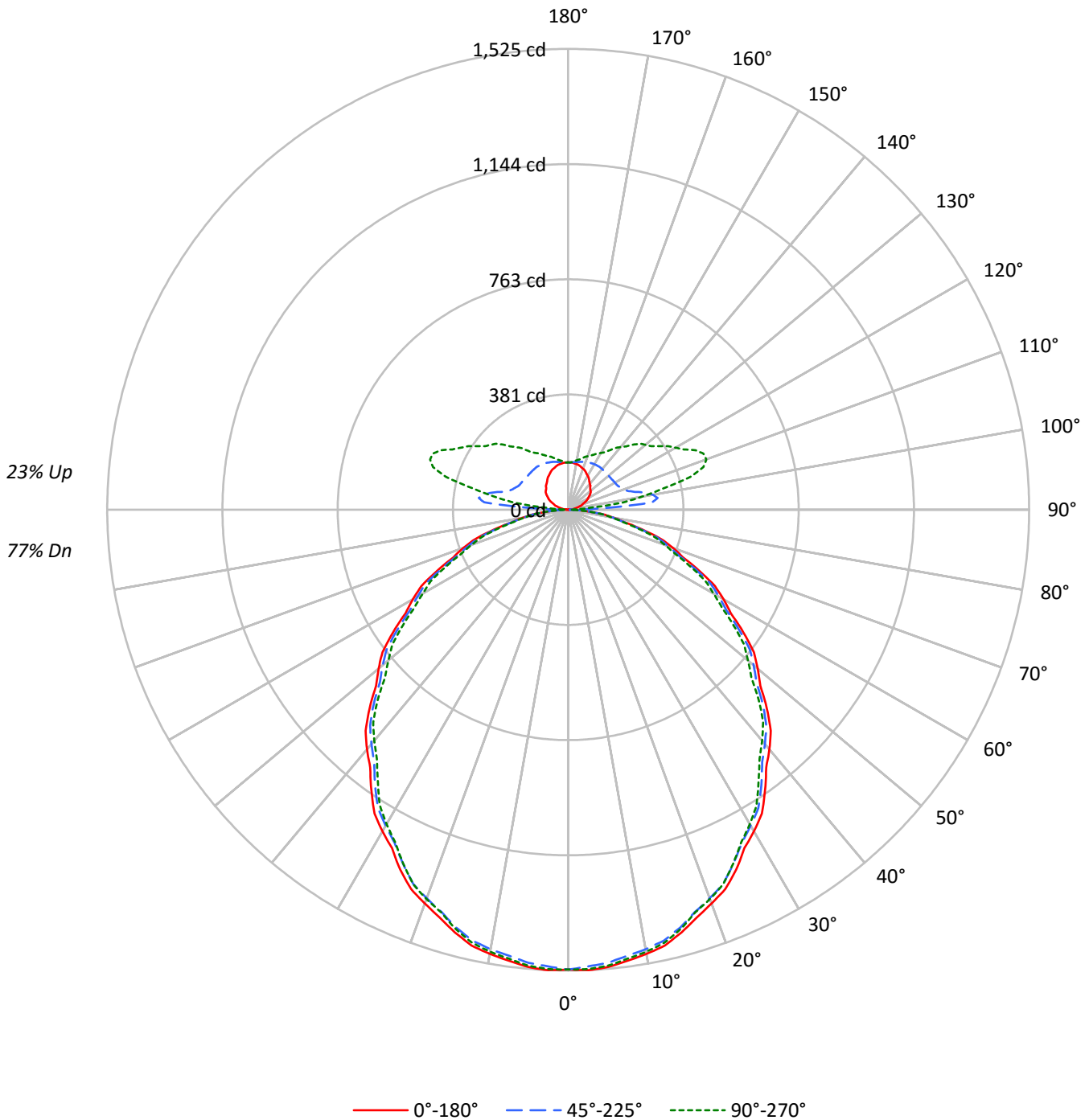
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9827	9827	9827
5°	9849	9756	9818
10°	9789	9686	9742
15°	9682	9570	9610
20°	9531	9407	9423
25°	9368	9213	9204
30°	9165	9004	8959
35°	8949	8779	8656
40°	8728	8535	8413
45°	8488	8312	8147
50°	8225	8043	7801
55°	7970	7739	7523
60°	7665	7432	7167
65°	7303	7065	6825
70°	6956	6637	6411
75°	6338	6128	5916
80°	5642	5553	5415
85°	4905	4994	4728



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.5	2.8
10°-20°	405.3	7.9
20°-30°	598.4	11.7
30°-40°	698.2	13.6
40°-50°	701.3	13.7
50°-60°	615.6	12.0
60°-70°	458.7	8.9
70°-80°	262.3	5.1
80°-90°	77.2	1.5
90°-100°	113.3	2.2
100°-110°	243.6	4.7
110°-120°	228.6	4.5
120°-130°	185.2	3.6
130°-140°	148.7	2.9
140°-150°	112.2	2.2
150°-160°	79.0	1.5
160°-170°	46.5	0.9
170°-180°	15.1	0.3
0°-30°	1147.1	22.4
0°-40°	1845.3	36.0
0°-60°	3162.2	61.6
0°-90°	3960.3	77.2
90°-120°	585.4	11.4
90°-150°	1031.5	20.1
90°-180°	1172.0	22.8
0°-180°	5132.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1519	1516	1505	1515	1514	144
15°	1448	1444	1431	1437	1437	408
25°	1315	1308	1293	1295	1292	605
35°	1135	1130	1114	1107	1098	710
45°	929	924	910	896	892	716
55°	708	703	687	677	668	632
65°	478	475	462	452	447	474
75°	254	251	246	242	237	271
85°	66	67	67	66	64	74
90°	0	3	5	7	7	4
95°	10	31	279	127	74	11
105°	36	50	228	450	418	38
115°	64	77	183	395	465	63
125°	88	103	176	314	366	78
135°	103	124	175	264	304	80
145°	120	138	175	218	240	75
155°	137	148	171	193	201	63
165°	150	154	164	174	176	42
175°	156	156	157	159	158	15
180°	156	156	156	156	156	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1525.4	1524.8	1524.1	1523.5	1522.9	1521.4	1519.3	1517.2	1515.0	1512.9	1515.0
5°	1519.2	1518.7	1518.1	1517.6	1517.1	1515.5	1512.8	1510.1	1507.4	1504.8	1507.2
7.5°	1505.2	1504.7	1504.1	1503.6	1503.1	1501.3	1498.3	1495.4	1492.5	1489.5	1491.9
10°	1492.7	1492.2	1491.7	1491.1	1490.6	1488.8	1485.9	1482.9	1480.0	1477.0	1479.2
12.5°	1477.3	1476.3	1475.3	1474.4	1473.5	1471.6	1468.8	1466.2	1463.4	1460.6	1462.4
15°	1448.1	1447.3	1446.5	1445.7	1444.9	1443.1	1440.1	1437.2	1434.2	1431.3	1432.6
17.5°	1414.7	1413.5	1412.3	1411.1	1410.0	1407.8	1404.8	1401.8	1398.7	1395.6	1397.3
20°	1386.8	1386.3	1385.7	1385.2	1384.6	1382.6	1379.1	1375.6	1372.2	1368.7	1370.6
22.5°	1358.8	1357.9	1356.9	1355.9	1355.0	1352.8	1349.6	1346.3	1343.1	1339.8	1341.0
25°	1314.6	1313.2	1311.9	1310.5	1309.2	1306.8	1303.3	1299.8	1296.4	1292.9	1293.4
27.5°	1262.8	1261.9	1261.1	1260.3	1259.5	1257.4	1253.7	1250.2	1246.6	1243.0	1243.1
30°	1229.0	1228.2	1227.4	1226.6	1225.8	1223.4	1219.4	1215.4	1211.4	1207.4	1206.8
32.5°	1192.5	1191.2	1190.0	1188.7	1187.6	1185.2	1181.5	1177.9	1174.4	1170.8	1169.8
35°	1135.1	1134.1	1133.0	1131.9	1130.9	1128.5	1124.7	1121.0	1117.2	1113.5	1112.1
37.5°	1075.7	1074.3	1073.0	1071.7	1070.3	1067.9	1064.3	1060.9	1057.3	1053.8	1051.8
40°	1035.3	1033.9	1032.6	1031.3	1029.9	1027.3	1023.6	1019.8	1016.1	1012.4	1010.0
42.5°	991.9	990.8	989.7	988.6	987.4	985.0	981.2	977.5	973.7	970.0	967.8
45°	929.3	928.3	927.2	926.1	925.1	922.9	919.7	916.5	913.3	910.1	906.9
47.5°	861.9	861.9	862.0	862.1	862.1	860.2	856.4	852.5	848.6	844.8	841.5
50°	818.6	817.8	817.0	816.2	815.4	813.3	810.1	806.9	803.7	800.5	797.0
52.5°	774.3	773.6	773.1	772.5	772.0	769.9	766.5	763.0	759.6	756.2	753.1
55°	707.8	707.0	706.2	705.4	704.6	702.3	698.6	694.8	691.1	687.3	684.9
57.5°	637.8	637.3	636.9	636.5	636.1	634.3	631.1	627.9	624.8	621.6	618.5
60°	593.4	592.4	591.3	590.2	589.2	587.2	584.2	581.3	578.4	575.4	572.7
62.5°	547.2	546.4	545.5	544.7	543.9	542.2	539.6	537.1	534.6	532.1	529.1
65°	477.9	477.3	476.8	476.3	475.7	474.0	471.1	468.1	465.2	462.3	459.9
67.5°	410.7	409.6	408.5	407.3	406.3	404.6	402.3	400.2	398.0	395.8	393.8
70°	368.4	367.0	365.7	364.4	363.0	361.1	358.7	356.3	353.9	351.5	349.9
72.5°	322.2	321.2	320.3	319.4	318.5	317.3	315.8	314.1	312.6	311.0	309.2
75°	254.0	253.4	252.9	252.4	251.8	250.9	249.6	248.3	246.9	245.6	244.8
77.5°	191.2	190.9	190.7	190.6	190.3	189.8	189.0	188.3	187.6	186.8	186.4
80°	151.7	151.7	151.7	151.7	151.7	151.4	150.9	150.3	149.8	149.3	149.0
82.5°	117.0	116.5	116.2	115.7	115.3	115.0	114.9	114.9	114.7	114.6	114.1
85°	66.2	66.4	66.7	67.0	67.2	67.4	67.4	67.4	67.4	67.4	67.1
87.5°	26.0	26.1	26.2	26.4	26.5	26.5	26.4	26.3	26.1	26.0	26.1
90°	0.4	0.6	1.2	1.9	2.5	3.1	3.5	4.1	4.4	5.1	5.4
92.5°	3.8	4.6	7.3	11.2	16.7	25.9	43.1	71.9	103.3	101.6	82.2
95°	10.4	10.7	13.2	16.7	23.6	37.8	71.5	140.9	227.8	279.2	273.2
97.5°	17.3	17.7	19.4	22.9	29.2	39.3	61.6	112.4	203.5	298.2	345.7
100°	22.0	22.6	24.0	27.4	33.4	42.9	61.2	102.1	181.6	284.5	363.4
102.5°	27.4	27.7	28.7	32.5	38.0	47.2	63.4	97.8	164.9	260.6	352.8
105°	35.6	35.6	37.2	40.3	45.4	54.2	68.0	96.1	148.7	228.5	319.0
107.5°	43.7	44.3	45.8	48.4	53.7	61.6	75.0	99.0	142.0	206.3	284.4
110°	49.5	50.1	51.4	54.2	58.9	67.1	80.1	101.8	139.9	196.0	264.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	55.3	55.9	56.9	59.7	64.5	72.4	84.8	105.3	139.9	189.9	250.1
115°	63.7	64.3	65.3	68.0	72.8	80.7	92.4	110.6	140.9	183.4	234.2
117.5°	71.2	72.1	73.2	76.0	81.4	89.0	100.0	116.6	142.9	180.2	224.6
120°	76.2	77.2	78.5	81.3	86.7	94.5	105.6	120.7	145.0	178.7	219.4
122.5°	81.6	82.2	83.3	86.1	91.9	99.9	110.8	125.2	146.7	177.5	214.8
125°	88.3	88.9	90.4	93.3	99.2	107.5	117.9	131.4	149.7	175.8	208.7
127.5°	93.5	94.4	96.4	100.0	106.4	114.6	124.6	137.1	153.0	175.1	203.0
130°	96.8	97.7	100.2	104.3	110.9	119.1	128.9	140.9	155.1	174.6	199.2
132.5°	99.2	100.5	103.5	108.1	114.9	123.1	133.0	144.2	157.3	174.6	196.2
135°	103.3	104.6	108.4	113.4	120.1	128.6	138.3	148.7	160.4	174.6	192.5
137.5°	108.5	109.5	113.0	118.1	124.6	133.3	142.2	152.1	163.3	175.0	189.3
140°	111.6	112.5	116.3	121.4	127.3	135.8	145.0	154.4	164.5	175.2	187.8
142.5°	115.1	115.7	119.3	124.4	130.1	138.1	146.7	155.7	165.2	175.5	186.5
145°	120.4	121.0	124.1	128.6	134.3	141.5	149.7	157.6	166.0	175.2	184.7
147.5°	125.9	126.3	129.0	133.1	138.0	144.4	151.6	158.7	166.4	174.4	182.7
150°	129.2	129.8	132.1	136.2	140.5	145.9	152.8	159.4	166.4	173.6	181.2
152.5°	132.8	133.1	135.1	138.7	142.9	147.7	154.1	160.0	166.1	172.6	179.4
155°	137.4	137.4	139.3	142.4	145.6	150.0	155.3	160.4	165.4	170.9	176.5
157.5°	141.6	141.5	143.0	145.7	148.5	151.9	156.4	160.7	164.6	168.9	173.7
160°	144.4	144.0	145.3	147.5	150.0	152.8	156.9	160.7	163.9	167.6	171.5
162.5°	146.6	146.3	147.6	149.5	151.5	153.8	157.5	160.5	163.1	166.1	169.4
165°	150.0	149.4	150.3	151.9	153.2	155.1	157.6	160.1	162.0	163.9	166.4
167.5°	152.3	151.9	152.6	153.4	154.3	155.5	157.6	159.3	160.2	161.7	163.5
170°	153.8	153.5	153.8	154.4	155.1	156.0	157.6	158.8	159.4	160.4	161.7
172.5°	154.8	154.3	154.5	155.2	155.5	156.0	157.3	158.4	158.5	158.9	159.9
175°	156.0	155.3	155.7	156.0	156.0	156.0	156.9	157.6	157.3	157.3	157.6
177.5°	156.6	156.0	156.0	156.3	156.0	156.0	156.6	156.9	156.3	156.3	156.6
180°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1517.2	1519.3	1521.4	1522.4	1522.2	1522.0	1521.8	1521.6
5°	1509.6	1512.0	1514.4	1515.5	1515.2	1514.9	1514.7	1514.4
7.5°	1494.2	1496.6	1499.0	1500.0	1499.8	1499.5	1499.2	1499.0
10°	1481.3	1483.5	1485.6	1486.6	1486.3	1486.0	1485.8	1485.5
12.5°	1464.1	1465.8	1467.5	1468.4	1468.3	1468.2	1468.2	1468.1
15°	1434.0	1435.3	1436.6	1437.3	1437.3	1437.3	1437.3	1437.3
17.5°	1399.0	1400.6	1402.3	1402.5	1401.1	1399.8	1398.5	1397.1
20°	1372.4	1374.3	1376.2	1376.4	1375.1	1373.8	1372.4	1371.1
22.5°	1342.3	1343.5	1344.7	1344.9	1344.0	1343.1	1342.2	1341.2
25°	1294.0	1294.5	1295.0	1294.9	1294.1	1293.2	1292.4	1291.6
27.5°	1243.2	1243.3	1243.5	1243.1	1242.3	1241.5	1240.7	1239.9
30°	1206.3	1205.8	1205.2	1204.6	1203.8	1203.0	1202.2	1201.4
32.5°	1168.9	1167.9	1167.0	1165.7	1164.3	1162.9	1161.4	1159.9
35°	1110.8	1109.5	1108.1	1106.4	1104.3	1102.2	1100.0	1097.9
37.5°	1049.8	1047.8	1045.9	1044.3	1043.0	1041.8	1040.5	1039.4
40°	1007.5	1005.1	1002.7	1001.1	1000.3	999.5	998.7	997.9
42.5°	965.6	963.4	961.3	959.5	958.3	957.1	955.8	954.6
45°	903.7	900.4	897.2	895.2	894.4	893.6	892.8	892.0
47.5°	838.3	835.0	831.8	829.2	827.3	825.5	823.6	821.7
50°	793.5	790.1	786.6	783.9	782.0	780.2	778.3	776.4
52.5°	750.1	747.1	744.0	741.5	739.3	737.3	735.2	733.1
55°	682.5	680.1	677.7	675.6	673.7	671.8	669.9	668.1
57.5°	615.5	612.3	609.2	607.2	606.2	605.1	604.1	603.1
60°	570.1	567.4	564.7	562.4	560.5	558.7	556.8	554.9
62.5°	526.3	523.4	520.5	518.4	516.9	515.5	514.0	512.6
65°	457.4	455.0	452.6	450.8	449.8	448.7	447.6	446.6
67.5°	391.7	389.7	387.6	386.3	385.7	385.0	384.4	383.8
70°	348.3	346.7	345.1	343.8	342.7	341.6	340.5	339.5
72.5°	307.5	305.6	303.8	302.4	301.3	300.2	299.2	298.1
75°	244.0	243.2	242.4	241.4	240.3	239.2	238.2	237.1
77.5°	185.8	185.4	184.9	184.3	183.5	182.8	182.0	181.3
80°	148.7	148.5	148.2	147.8	147.2	146.7	146.2	145.6
82.5°	113.6	113.2	112.7	112.4	112.3	112.2	112.1	111.9
85°	66.9	66.6	66.3	65.9	65.4	64.8	64.3	63.8
87.5°	26.2	26.2	26.3	26.2	25.8	25.3	25.0	24.5
90°	5.7	6.0	6.3	7.0	7.0	7.0	7.2	7.2
92.5°	55.8	40.5	30.5	25.9	21.8	21.0	20.6	20.1
95°	226.6	178.7	139.9	113.4	91.0	81.6	79.1	74.1
97.5°	337.4	303.9	266.1	229.3	209.8	192.2	183.1	179.0
100°	387.6	372.2	339.7	306.9	285.2	262.5	250.8	245.8
102.5°	404.5	414.0	398.5	376.3	353.0	336.9	324.2	320.5
105°	394.6	437.7	451.6	448.2	438.0	427.7	421.3	417.6
107.5°	359.0	416.6	452.2	468.7	473.8	473.8	471.6	469.1
110°	332.8	392.7	437.1	463.9	478.0	484.0	486.2	486.2



TEST NUMBER: P333258-940

CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	312.1	369.0	413.9	445.5	466.2	476.5	482.0	484.3
115°	286.1	335.0	378.2	412.5	437.1	452.2	461.0	465.1
117.5°	269.4	311.5	348.7	380.2	404.7	420.4	429.2	431.7
120°	260.3	298.1	332.8	360.5	383.9	399.0	407.5	410.0
122.5°	253.5	288.6	319.4	345.4	366.2	380.0	388.6	390.8
125°	243.6	275.7	303.2	325.8	343.5	356.4	363.4	366.5
127.5°	233.5	263.5	289.1	310.3	326.4	337.8	344.3	345.7
130°	227.2	254.9	279.6	300.1	315.8	326.2	332.5	334.4
132.5°	220.9	246.9	269.2	288.9	304.7	315.0	320.8	323.0
135°	212.8	234.4	254.7	272.6	286.5	296.9	302.6	304.4
137.5°	205.8	223.4	240.1	255.4	267.8	277.2	282.5	284.5
140°	202.0	216.8	231.3	244.5	256.2	264.4	269.1	270.7
142.5°	198.8	211.2	223.7	235.2	245.1	252.1	256.5	257.9
145°	194.5	204.2	214.0	222.5	230.1	235.4	238.9	240.1
147.5°	190.4	198.3	205.9	212.3	218.3	222.6	224.5	225.2
150°	188.2	195.1	201.1	206.7	211.4	215.3	216.5	216.8
152.5°	185.7	191.8	197.2	201.7	205.6	208.7	209.9	210.3
155°	181.8	186.9	191.3	194.7	197.9	200.1	201.1	201.3
157.5°	178.1	182.2	185.7	188.3	190.8	192.6	193.5	193.4
160°	175.6	178.7	181.8	184.0	186.3	187.8	188.4	188.2
162.5°	172.7	175.7	178.3	180.3	182.0	183.2	183.4	183.3
165°	168.9	171.1	173.0	174.6	175.8	176.5	176.5	176.5
167.5°	165.2	166.7	168.2	169.3	170.0	170.5	170.2	170.1
170°	163.3	164.2	165.1	165.8	166.4	166.7	166.7	166.4
172.5°	161.0	161.9	162.6	163.0	163.1	163.7	163.2	162.8
175°	158.5	158.5	159.2	159.2	159.2	159.4	158.8	158.5
177.5°	156.9	157.0	157.0	157.0	156.9	157.0	156.3	156.3
180°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3

(END OF REPORT)