

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: P333258-830

Luminaire Tested: **S125DIP-S1090D365U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333258-830
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-S1090D365U830-4F0-1E-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: 5425.1 lumens
Efficiency: N/A
Efficacy: 124.7 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

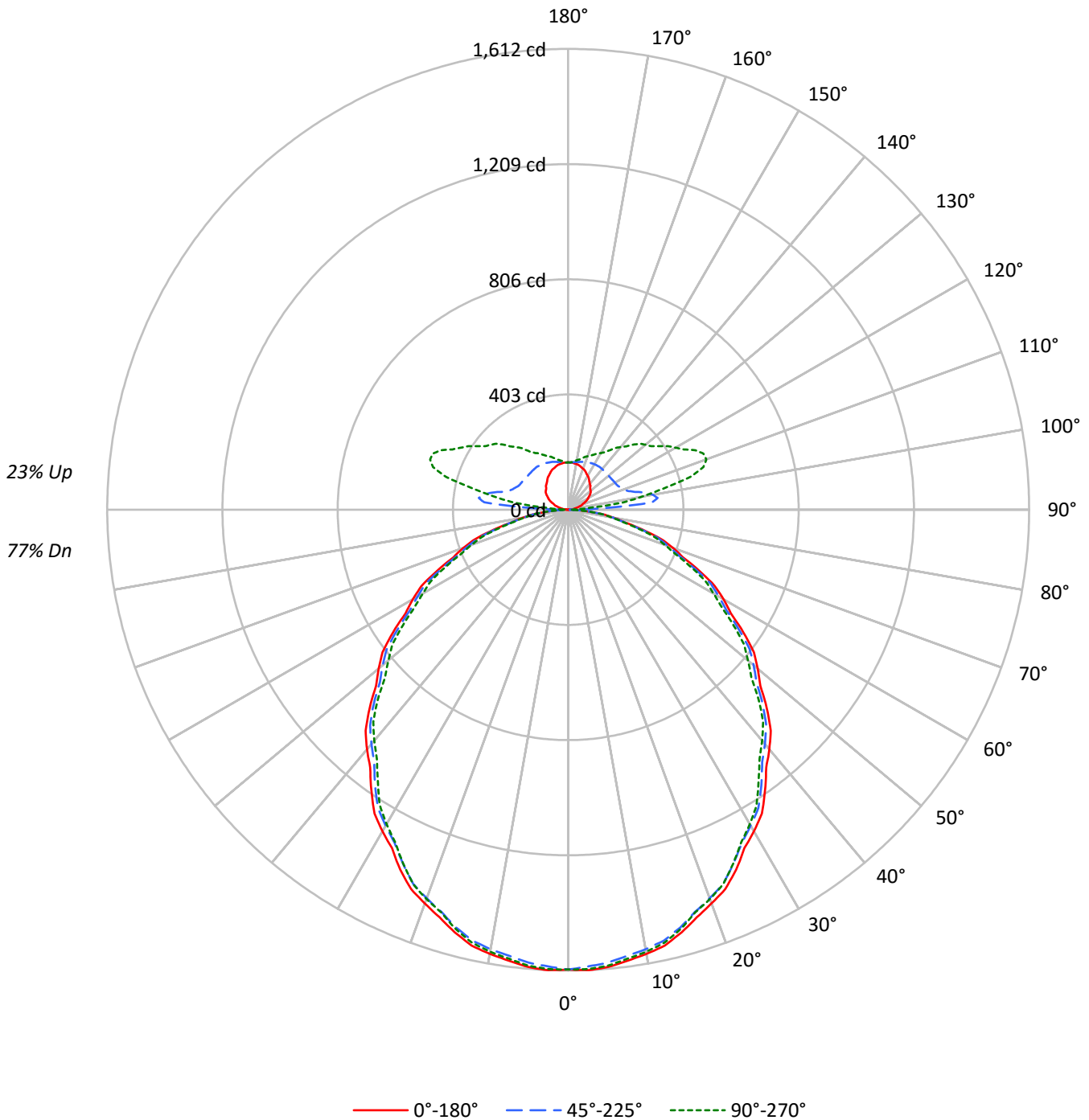
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10388	10388	10388
5°	10410	10311	10377
10°	10347	10238	10297
15°	10235	10116	10158
20°	10074	9943	9961
25°	9902	9738	9729
30°	9688	9517	9470
35°	9460	9280	9150
40°	9226	9022	8893
45°	8972	8786	8611
50°	8694	8501	8246
55°	8425	8180	7952
60°	8103	7856	7576
65°	7719	7467	7213
70°	7353	7017	6775
75°	6697	6478	6253
80°	5962	5869	5724
85°	5180	5283	4994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.6	2.8
10°-20°	428.4	7.9
20°-30°	632.5	11.7
30°-40°	738.0	13.6
40°-50°	741.2	13.7
50°-60°	650.7	12.0
60°-70°	484.8	8.9
70°-80°	277.2	5.1
80°-90°	81.6	1.5
90°-100°	119.8	2.2
100°-110°	257.4	4.7
110°-120°	241.6	4.5
120°-130°	195.8	3.6
130°-140°	157.1	2.9
140°-150°	118.6	2.2
150°-160°	83.5	1.5
160°-170°	49.2	0.9
170°-180°	16.0	0.3
0°-30°	1212.5	22.4
0°-40°	1950.5	36.0
0°-60°	3342.4	61.6
0°-90°	4186.0	77.2
90°-120°	618.8	11.4
90°-150°	1090.3	20.1
90°-180°	1239.0	22.8
0°-180°	5425.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1606	1603	1590	1601	1601	152
15°	1531	1526	1513	1519	1519	431
25°	1390	1383	1367	1369	1365	639
35°	1200	1194	1177	1170	1160	750
45°	982	977	962	947	943	757
55°	748	744	726	715	706	668
65°	505	502	489	477	472	501
75°	268	266	260	256	251	286
85°	70	71	71	70	67	78
90°	0	3	5	7	8	4
95°	11	32	295	134	78	12
105°	38	53	242	476	441	40
115°	67	81	194	418	492	66
125°	93	109	186	332	387	83
135°	109	131	184	279	322	85
145°	127	146	185	231	254	80
155°	145	156	181	204	213	67
165°	158	163	173	184	186	45
175°	165	165	166	168	168	16
180°	165	165	165	165	165	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1612.4	1611.7	1611.0	1610.3	1609.7	1608.2	1605.9	1603.6	1601.4	1599.1	1601.4
5°	1605.8	1605.2	1604.7	1604.1	1603.5	1601.9	1599.0	1596.2	1593.4	1590.5	1593.1
7.5°	1591.0	1590.4	1589.9	1589.3	1588.7	1586.9	1583.8	1580.6	1577.5	1574.4	1577.0
10°	1577.8	1577.3	1576.7	1576.1	1575.6	1573.7	1570.6	1567.4	1564.3	1561.2	1563.5
12.5°	1561.5	1560.5	1559.4	1558.4	1557.5	1555.5	1552.6	1549.7	1546.8	1543.9	1545.8
15°	1530.7	1529.8	1529.0	1528.1	1527.3	1525.3	1522.2	1519.1	1516.0	1512.9	1514.3
17.5°	1495.3	1494.1	1492.8	1491.6	1490.3	1488.1	1484.9	1481.7	1478.5	1475.2	1477.0
20°	1465.8	1465.3	1464.7	1464.1	1463.6	1461.4	1457.7	1454.1	1450.4	1446.7	1448.7
22.5°	1436.2	1435.3	1434.3	1433.2	1432.2	1429.9	1426.5	1423.1	1419.7	1416.2	1417.5
25°	1389.5	1388.1	1386.7	1385.3	1383.8	1381.3	1377.6	1373.9	1370.3	1366.6	1367.2
27.5°	1334.7	1333.9	1333.0	1332.2	1331.3	1329.1	1325.2	1321.4	1317.7	1313.9	1314.0
30°	1299.1	1298.3	1297.4	1296.6	1295.7	1293.2	1288.9	1284.7	1280.4	1276.2	1275.6
32.5°	1260.5	1259.1	1257.8	1256.5	1255.3	1252.7	1248.9	1245.1	1241.3	1237.6	1236.5
35°	1199.9	1198.7	1197.6	1196.5	1195.3	1192.8	1188.8	1184.9	1180.9	1177.0	1175.5
37.5°	1137.0	1135.6	1134.2	1132.7	1131.3	1128.8	1125.0	1121.3	1117.6	1113.9	1111.7
40°	1094.3	1092.9	1091.5	1090.1	1088.6	1085.9	1081.9	1078.0	1074.0	1070.1	1067.5
42.5°	1048.5	1047.3	1046.1	1044.9	1043.7	1041.1	1037.2	1033.2	1029.3	1025.3	1022.9
45°	982.3	981.2	980.1	978.9	977.8	975.5	972.1	968.7	965.4	962.0	958.6
47.5°	911.1	911.1	911.2	911.3	911.3	909.3	905.2	901.1	897.0	893.0	889.5
50°	865.3	864.4	863.6	862.7	861.9	859.7	856.3	852.9	849.5	846.1	842.4
52.5°	818.4	817.7	817.2	816.5	816.0	813.8	810.2	806.5	803.0	799.3	796.1
55°	748.2	747.3	746.5	745.6	744.8	742.3	738.4	734.4	730.5	726.5	724.0
57.5°	674.1	673.6	673.3	672.8	672.3	670.4	667.0	663.7	660.4	657.0	653.7
60°	627.3	626.1	625.0	623.9	622.7	620.7	617.6	614.4	611.3	608.2	605.4
62.5°	578.4	577.5	576.6	575.7	574.9	573.1	570.3	567.7	565.1	562.4	559.3
65°	505.1	504.5	504.0	503.4	502.8	501.1	497.9	494.8	491.7	488.6	486.1
67.5°	434.1	432.9	431.8	430.6	429.4	427.6	425.3	423.0	420.7	418.4	416.2
70°	389.4	388.0	386.5	385.1	383.7	381.7	379.2	376.6	374.1	371.6	369.9
72.5°	340.5	339.5	338.6	337.6	336.7	335.4	333.8	332.1	330.5	328.8	326.9
75°	268.4	267.9	267.3	266.7	266.2	265.2	263.8	262.4	261.0	259.6	258.7
77.5°	202.1	201.8	201.6	201.4	201.1	200.7	199.8	199.1	198.3	197.5	197.0
80°	160.3	160.3	160.3	160.3	160.3	160.0	159.5	158.9	158.3	157.8	157.5
82.5°	123.7	123.2	122.8	122.3	121.9	121.6	121.5	121.4	121.2	121.1	120.6
85°	69.9	70.2	70.5	70.8	71.1	71.3	71.3	71.3	71.3	71.3	71.0
87.5°	27.5	27.6	27.7	27.9	28.0	28.0	27.9	27.8	27.6	27.5	27.6
90°	0.4	0.7	1.3	2.0	2.6	3.3	3.7	4.3	4.6	5.4	5.7
92.5°	4.1	4.9	7.7	11.9	17.6	27.3	45.5	76.0	109.1	107.4	86.9
95°	11.0	11.3	13.9	17.6	25.0	40.0	75.6	148.9	240.8	295.1	288.8
97.5°	18.3	18.7	20.5	24.2	30.8	41.6	65.1	118.9	215.1	315.2	365.4
100°	23.3	23.9	25.4	28.9	35.3	45.3	64.7	107.9	191.9	300.8	384.1
102.5°	28.9	29.3	30.3	34.3	40.2	49.9	67.0	103.4	174.3	275.5	372.9
105°	37.6	37.6	39.3	42.6	48.0	57.3	71.9	101.6	157.2	241.5	337.1
107.5°	46.2	46.8	48.4	51.2	56.7	65.1	79.3	104.6	150.1	218.1	300.6
110°	52.3	53.0	54.3	57.3	62.3	71.0	84.6	107.6	147.9	207.2	279.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	58.4	59.1	60.1	63.2	68.1	76.5	89.6	111.3	147.9	200.8	264.4
115°	67.3	68.0	69.0	71.9	76.9	85.3	97.6	116.9	148.9	193.9	247.5
117.5°	75.3	76.3	77.4	80.3	86.1	94.1	105.8	123.3	151.1	190.5	237.4
120°	80.6	81.6	82.9	86.0	91.6	99.9	111.6	127.6	153.3	188.9	231.9
122.5°	86.2	86.9	88.0	91.0	97.2	105.6	117.2	132.3	155.0	187.6	227.1
125°	93.3	94.0	95.6	98.6	104.9	113.6	124.6	138.9	158.3	185.9	220.6
127.5°	98.8	99.8	101.9	105.8	112.4	121.1	131.7	144.9	161.7	185.1	214.5
130°	102.3	103.3	105.9	110.3	117.3	125.9	136.2	148.9	163.9	184.5	210.6
132.5°	104.9	106.2	109.4	114.2	121.5	130.2	140.5	152.4	166.3	184.5	207.4
135°	109.2	110.6	114.6	119.9	127.0	135.9	146.2	157.2	169.6	184.5	203.5
137.5°	114.7	115.7	119.4	124.8	131.7	140.9	150.3	160.8	172.6	184.9	200.1
140°	117.9	118.9	122.9	128.3	134.6	143.5	153.3	163.2	173.9	185.2	198.5
142.5°	121.7	122.3	126.1	131.5	137.5	146.0	155.0	164.6	174.7	185.5	197.2
145°	127.2	127.9	131.2	135.9	141.9	149.6	158.3	166.5	175.5	185.2	195.2
147.5°	133.1	133.5	136.4	140.7	145.9	152.6	160.2	167.8	175.9	184.4	193.1
150°	136.6	137.2	139.6	143.9	148.5	154.2	161.6	168.5	175.9	183.5	191.5
152.5°	140.3	140.7	142.8	146.6	151.0	156.1	162.9	169.1	175.6	182.5	189.6
155°	145.2	145.2	147.2	150.5	153.9	158.5	164.2	169.6	174.8	180.6	186.5
157.5°	149.7	149.6	151.2	154.0	156.9	160.5	165.3	169.8	174.0	178.5	183.6
160°	152.6	152.2	153.5	155.9	158.5	161.6	165.9	169.8	173.2	177.2	181.3
162.5°	155.0	154.7	156.0	158.1	160.1	162.6	166.5	169.7	172.4	175.6	179.1
165°	158.5	157.9	158.9	160.5	161.9	163.9	166.5	169.2	171.3	173.2	175.9
167.5°	161.0	160.6	161.3	162.1	163.1	164.4	166.5	168.4	169.4	170.9	172.8
170°	162.6	162.2	162.6	163.2	163.9	164.9	166.5	167.9	168.5	169.6	170.9
172.5°	163.6	163.1	163.3	164.0	164.4	164.9	166.3	167.4	167.5	168.0	169.0
175°	164.9	164.2	164.6	164.9	164.9	164.9	165.9	166.5	166.3	166.3	166.5
177.5°	165.5	164.9	164.9	165.2	164.9	164.9	165.5	165.8	165.2	165.2	165.5
180°	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1603.6	1605.9	1608.2	1609.2	1609.0	1608.7	1608.5	1608.4
5°	1595.6	1598.2	1600.7	1601.9	1601.6	1601.3	1601.0	1600.7
7.5°	1579.4	1582.0	1584.4	1585.5	1585.3	1585.0	1584.7	1584.4
10°	1565.8	1568.0	1570.3	1571.3	1571.0	1570.7	1570.5	1570.2
12.5°	1547.6	1549.4	1551.1	1552.1	1552.0	1551.9	1551.9	1551.8
15°	1515.7	1517.1	1518.5	1519.3	1519.3	1519.3	1519.3	1519.3
17.5°	1478.8	1480.5	1482.2	1482.4	1481.0	1479.6	1478.2	1476.8
20°	1450.7	1452.6	1454.6	1454.9	1453.5	1452.1	1450.7	1449.3
22.5°	1418.8	1420.1	1421.4	1421.5	1420.6	1419.7	1418.7	1417.7
25°	1367.7	1368.3	1368.9	1368.7	1367.8	1367.0	1366.1	1365.3
27.5°	1314.1	1314.2	1314.4	1314.0	1313.2	1312.3	1311.5	1310.6
30°	1275.1	1274.5	1273.9	1273.3	1272.4	1271.6	1270.7	1269.9
32.5°	1235.5	1234.4	1233.5	1232.2	1230.7	1229.2	1227.6	1226.1
35°	1174.1	1172.7	1171.3	1169.5	1167.2	1165.0	1162.7	1160.5
37.5°	1109.7	1107.6	1105.5	1103.8	1102.5	1101.2	1099.9	1098.6
40°	1065.0	1062.4	1059.9	1058.2	1057.3	1056.5	1055.6	1054.8
42.5°	1020.7	1018.3	1016.1	1014.2	1013.0	1011.6	1010.3	1009.0
45°	955.2	951.8	948.4	946.2	945.4	944.5	943.7	942.8
47.5°	886.1	882.6	879.2	876.5	874.5	872.5	870.5	868.6
50°	838.8	835.1	831.4	828.6	826.6	824.6	822.7	820.7
52.5°	792.9	789.7	786.5	783.7	781.5	779.3	777.1	774.9
55°	721.4	718.9	716.3	714.1	712.1	710.1	708.1	706.2
57.5°	650.5	647.2	643.9	641.8	640.7	639.6	638.6	637.4
60°	602.6	599.7	596.9	594.5	592.5	590.5	588.5	586.5
62.5°	556.3	553.3	550.2	547.9	546.4	544.9	543.3	541.8
65°	483.5	481.0	478.4	476.5	475.4	474.3	473.2	472.0
67.5°	414.1	411.9	409.7	408.3	407.6	407.0	406.3	405.7
70°	368.2	366.5	364.8	363.4	362.2	361.1	360.0	358.8
72.5°	325.0	323.0	321.1	319.6	318.5	317.4	316.2	315.1
75°	257.9	257.0	256.2	255.1	254.0	252.9	251.8	250.6
77.5°	196.4	196.0	195.5	194.8	194.0	193.2	192.4	191.6
80°	157.2	156.9	156.7	156.2	155.6	155.0	154.5	153.9
82.5°	120.1	119.6	119.1	118.8	118.7	118.6	118.5	118.3
85°	70.7	70.4	70.1	69.7	69.1	68.5	68.0	67.4
87.5°	27.7	27.7	27.8	27.7	27.2	26.8	26.4	25.9
90°	6.0	6.3	6.7	7.4	7.4	7.4	7.6	7.6
92.5°	59.0	42.8	32.2	27.3	23.1	22.2	21.8	21.2
95°	239.5	188.9	147.9	119.9	96.2	86.2	83.6	78.3
97.5°	356.7	321.2	281.3	242.3	221.8	203.1	193.5	189.2
100°	409.7	393.4	359.1	324.4	301.4	277.5	265.1	259.9
102.5°	427.5	437.6	421.2	397.8	373.2	356.1	342.7	338.7
105°	417.1	462.7	477.3	473.7	463.0	452.0	445.4	441.4
107.5°	379.5	440.4	478.0	495.4	500.8	500.8	498.5	495.9
110°	351.8	415.1	462.0	490.3	505.3	511.6	514.0	514.0



TEST NUMBER: P333258-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	329.9	390.0	437.5	470.9	492.8	503.7	509.4	511.9
115°	302.5	354.1	399.7	436.0	462.0	478.0	487.3	491.6
117.5°	284.7	329.2	368.5	401.9	427.8	444.4	453.6	456.3
120°	275.1	315.1	351.8	381.1	405.8	421.7	430.7	433.4
122.5°	268.0	305.0	337.6	365.0	387.1	401.7	410.8	413.1
125°	257.5	291.4	320.5	344.4	363.1	376.7	384.1	387.4
127.5°	246.9	278.5	305.6	328.0	345.0	357.0	363.9	365.4
130°	240.2	269.5	295.5	317.2	333.8	344.8	351.5	353.5
132.5°	233.5	261.0	284.6	305.4	322.1	333.0	339.1	341.4
135°	224.9	247.8	269.2	288.1	302.8	313.8	319.8	321.8
137.5°	217.5	236.1	253.8	269.9	283.0	293.0	298.6	300.8
140°	213.5	229.1	244.5	258.4	270.8	279.5	284.5	286.2
142.5°	210.1	223.3	236.5	248.6	259.1	266.5	271.2	272.6
145°	205.6	215.8	226.2	235.2	243.2	248.8	252.5	253.8
147.5°	201.2	209.6	217.6	224.4	230.7	235.3	237.3	238.0
150°	198.9	206.2	212.5	218.5	223.5	227.5	228.8	229.1
152.5°	196.2	202.7	208.5	213.2	217.4	220.6	221.9	222.3
155°	192.2	197.6	202.2	205.9	209.2	211.5	212.5	212.8
157.5°	188.2	192.6	196.2	199.1	201.7	203.6	204.5	204.4
160°	185.6	188.9	192.2	194.5	196.9	198.5	199.2	198.9
162.5°	182.6	185.7	188.5	190.6	192.4	193.7	193.9	193.8
165°	178.5	180.9	182.9	184.5	185.9	186.5	186.5	186.5
167.5°	174.7	176.3	177.8	179.0	179.6	180.2	179.9	179.8
170°	172.6	173.5	174.6	175.2	175.9	176.3	176.3	175.9
172.5°	170.1	171.2	171.9	172.3	172.4	173.1	172.5	172.1
175°	167.6	167.6	168.2	168.2	168.2	168.5	167.9	167.6
177.5°	165.8	166.0	166.0	166.0	165.8	166.0	165.2	165.2
180°	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2

(END OF REPORT)