

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: P333267-840

Luminaire Tested: **S125DIP-S1090D590U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333267-840
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-S1090D590U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6628.3 lumens
Efficiency: N/A
Efficacy: 135.8 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

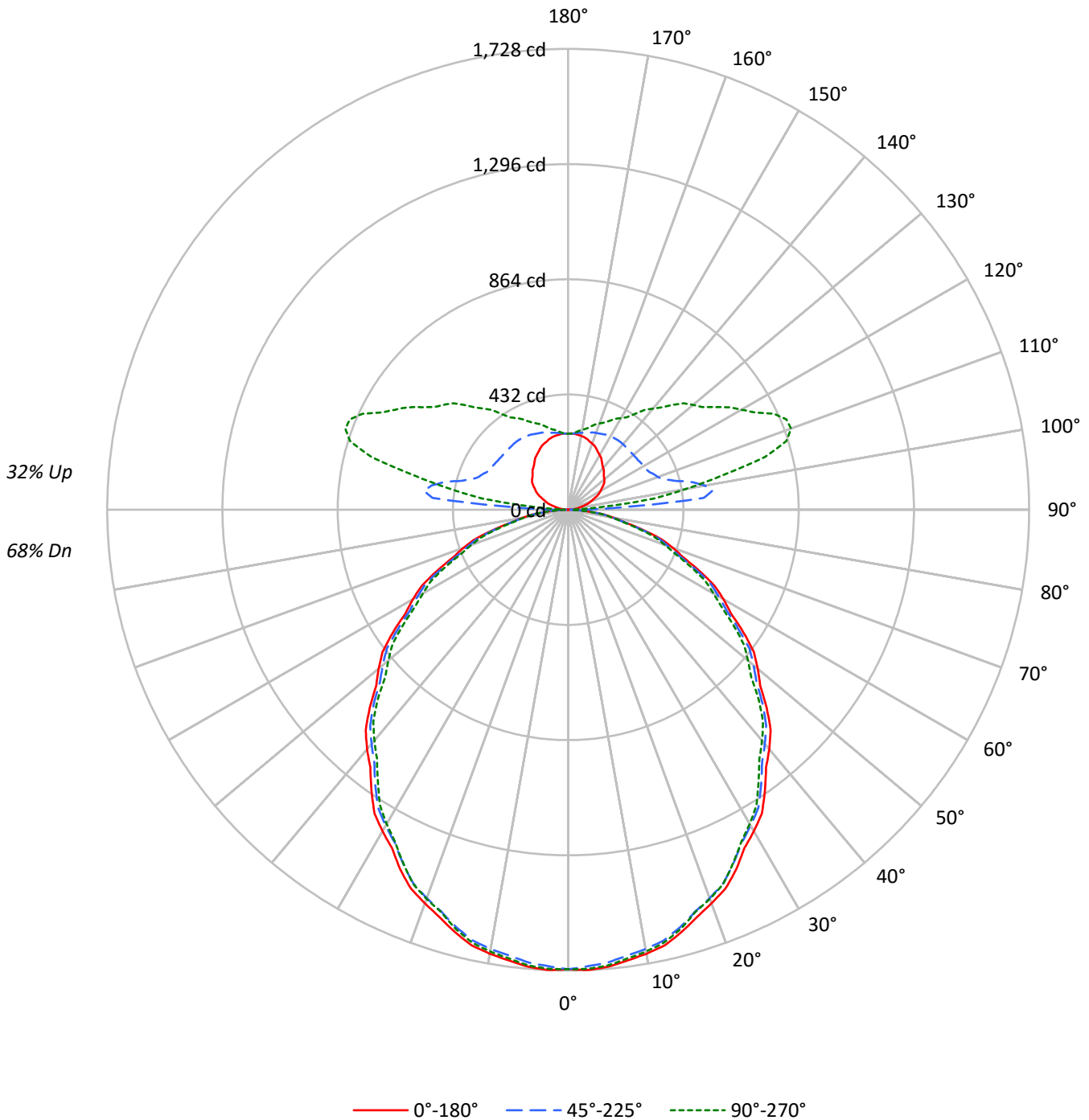
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	68
1	102	97	93	90	96	92	88	85	82	79	77	72	70	69	64	62	61	57
2	93	85	78	73	87	80	75	70	72	67	63	64	60	57	56	54	51	48
3	84	75	67	61	79	71	64	58	63	58	53	56	52	48	50	46	44	40
4	77	66	58	52	73	63	55	50	56	50	45	50	45	41	44	41	38	34
5	71	59	51	44	67	56	48	43	50	44	39	45	40	36	40	36	33	30
6	66	53	45	39	62	50	43	37	45	39	34	41	36	32	36	32	29	26
7	61	48	40	34	57	46	38	33	41	35	30	37	32	28	33	29	26	23
8	56	44	36	30	53	42	34	29	38	31	27	34	29	25	31	26	23	21
9	53	40	32	27	50	38	31	26	35	29	24	31	26	23	28	24	21	19
10	49	37	29	24	46	35	28	24	32	26	22	29	24	20	26	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11129	11129	11129
5°	11154	11048	11119
10°	11086	10970	11032
15°	10965	10838	10884
20°	10794	10653	10672
25°	10608	10434	10424
30°	10380	10197	10147
35°	10136	9942	9802
40°	9885	9666	9528
45°	9613	9414	9227
50°	9315	9109	8835
55°	9026	8765	8519
60°	8681	8418	8117
65°	8270	8000	7728
70°	7878	7517	7260
75°	7177	6939	6700
80°	6390	6289	6133
85°	5550	5654	5350



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	2.5
10°-20°	459.0	6.9
20°-30°	677.7	10.2
30°-40°	790.7	11.9
40°-50°	794.2	12.0
50°-60°	697.1	10.5
60°-70°	519.5	7.8
70°-80°	297.0	4.5
80°-90°	88.0	1.3
90°-100°	207.1	3.1
100°-110°	445.2	6.7
110°-120°	417.8	6.3
120°-130°	338.6	5.1
130°-140°	271.7	4.1
140°-150°	205.1	3.1
150°-160°	144.3	2.2
160°-170°	85.1	1.3
170°-180°	27.7	0.4
0°-30°	1299.1	19.6
0°-40°	2089.8	31.5
0°-60°	3581.2	54.0
0°-90°	4485.6	67.7
90°-120°	1070.2	16.1
90°-150°	1885.6	28.4
90°-180°	2143.0	32.3
0°-180°	6628.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1723	1723	1723	1723	1723	
5°	1720	1717	1704	1716	1715	163
15°	1640	1635	1621	1627	1628	462
25°	1489	1481	1464	1466	1463	685
35°	1286	1279	1261	1254	1243	804
45°	1052	1046	1031	1015	1010	811
55°	802	797	778	766	757	715
65°	541	538	524	512	506	537
75°	288	285	278	274	268	307
85°	75	76	76	75	72	84
90°	1	5	9	12	13	5
95°	19	56	510	232	135	20
105°	65	91	418	822	763	69
115°	116	140	335	723	850	114
125°	161	189	321	575	670	143
135°	189	227	319	482	556	147
145°	220	252	320	399	439	138
155°	251	270	312	353	368	116
165°	274	282	300	318	323	77
175°	285	285	287	291	290	27
180°	286	286	286	286	286	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1727.6	1726.9	1726.1	1725.4	1724.6	1723.0	1720.6	1718.2	1715.8	1713.3	1715.8
5°	1720.5	1719.9	1719.3	1718.7	1718.1	1716.3	1713.2	1710.2	1707.2	1704.1	1706.9
7.5°	1704.7	1704.0	1703.4	1702.8	1702.2	1700.2	1696.9	1693.5	1690.2	1686.9	1689.6
10°	1690.5	1689.9	1689.3	1688.7	1688.1	1686.1	1682.7	1679.4	1676.1	1672.7	1675.2
12.5°	1673.0	1671.9	1670.8	1669.7	1668.7	1666.6	1663.4	1660.4	1657.3	1654.2	1656.2
15°	1640.0	1639.1	1638.2	1637.3	1636.4	1634.3	1630.9	1627.6	1624.3	1620.9	1622.4
17.5°	1602.2	1600.8	1599.4	1598.1	1596.8	1594.4	1590.9	1587.5	1584.1	1580.5	1582.5
20°	1570.5	1569.9	1569.3	1568.7	1568.1	1565.8	1561.9	1557.9	1554.0	1550.0	1552.2
22.5°	1538.8	1537.8	1536.7	1535.6	1534.5	1532.1	1528.4	1524.7	1521.1	1517.3	1518.7
25°	1488.7	1487.2	1485.7	1484.2	1482.7	1480.0	1476.0	1472.1	1468.1	1464.2	1464.8
27.5°	1430.1	1429.2	1428.3	1427.3	1426.4	1424.0	1419.9	1415.8	1411.8	1407.8	1407.9
30°	1391.9	1391.0	1390.1	1389.2	1388.3	1385.5	1381.0	1376.4	1371.9	1367.4	1366.8
32.5°	1350.5	1349.1	1347.7	1346.3	1344.9	1342.2	1338.1	1334.0	1330.0	1326.0	1324.8
35°	1285.6	1284.3	1283.1	1281.9	1280.7	1278.0	1273.7	1269.5	1265.3	1261.0	1259.5
37.5°	1218.2	1216.7	1215.2	1213.7	1212.1	1209.4	1205.4	1201.4	1197.4	1193.5	1191.1
40°	1172.5	1170.9	1169.4	1167.9	1166.4	1163.5	1159.2	1155.0	1150.7	1146.5	1143.8
42.5°	1123.4	1122.1	1120.8	1119.5	1118.2	1115.5	1111.3	1107.0	1102.8	1098.5	1096.0
45°	1052.5	1051.3	1050.1	1048.8	1047.6	1045.2	1041.6	1037.9	1034.3	1030.7	1027.0
47.5°	976.1	976.1	976.2	976.3	976.3	974.2	969.9	965.4	961.1	956.7	953.0
50°	927.1	926.1	925.2	924.3	923.4	921.1	917.5	913.8	910.2	906.6	902.6
52.5°	876.9	876.2	875.6	874.8	874.2	871.9	868.1	864.1	860.3	856.4	852.9
55°	801.6	800.7	799.8	798.9	798.0	795.4	791.1	786.9	782.6	778.4	775.7
57.5°	722.3	721.8	721.3	720.8	720.3	718.3	714.7	711.1	707.6	704.0	700.4
60°	672.1	670.9	669.6	668.4	667.2	665.0	661.7	658.3	655.0	651.7	648.6
62.5°	619.8	618.7	617.8	616.8	615.9	614.0	611.1	608.2	605.4	602.6	599.3
65°	541.2	540.6	540.0	539.4	538.8	536.8	533.5	530.2	526.8	523.5	520.8
67.5°	465.1	463.8	462.6	461.3	460.1	458.2	455.7	453.2	450.7	448.3	446.0
70°	417.2	415.7	414.1	412.6	411.1	409.0	406.3	403.5	400.8	398.1	396.3
72.5°	364.9	363.8	362.7	361.7	360.7	359.3	357.6	355.8	354.1	352.2	350.2
75°	287.6	287.0	286.4	285.8	285.2	284.2	282.7	281.1	279.6	278.1	277.2
77.5°	216.5	216.2	216.0	215.8	215.5	215.0	214.1	213.3	212.5	211.6	211.1
80°	171.8	171.8	171.8	171.8	171.8	171.5	170.9	170.3	169.7	169.1	168.7
82.5°	132.5	132.0	131.6	131.1	130.6	130.3	130.2	130.1	129.9	129.8	129.3
85°	74.9	75.2	75.5	75.8	76.1	76.3	76.3	76.3	76.3	76.3	76.0
87.5°	29.6	29.7	29.9	30.1	30.4	30.5	30.4	30.3	30.2	30.2	30.3
90°	0.6	1.1	2.3	3.4	4.6	5.8	6.4	7.5	8.1	9.2	9.8
92.5°	7.1	8.5	13.3	20.5	30.4	47.3	78.7	131.5	188.7	185.7	150.4
95°	19.0	19.6	24.2	30.5	43.2	69.2	130.8	257.5	416.5	510.4	499.5
97.5°	31.6	32.2	35.4	41.8	53.2	71.9	112.7	205.5	371.9	545.0	632.0
100°	40.3	41.5	43.8	50.1	61.1	78.4	111.8	186.6	331.8	520.2	664.2
102.5°	50.0	50.7	52.5	59.4	69.4	86.1	115.9	178.8	301.3	476.4	644.8
105°	65.1	65.1	68.0	73.7	82.9	99.1	124.4	175.7	271.9	417.7	583.0
107.5°	79.9	81.0	83.7	88.5	98.1	112.6	137.1	181.0	259.4	377.2	519.9
110°	90.5	91.6	93.9	99.1	107.8	122.7	146.3	186.0	255.8	358.3	483.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	101.1	102.2	104.0	109.3	117.9	132.4	155.1	192.5	255.8	347.3	457.2
115°	116.3	117.5	119.3	124.4	133.1	147.4	168.7	202.2	257.5	335.3	428.0
117.5°	130.2	131.9	133.8	139.0	148.8	162.7	182.9	213.3	261.3	329.4	410.6
120°	139.4	141.2	143.4	148.7	158.4	172.8	193.0	220.7	265.0	326.6	400.9
122.5°	149.1	150.4	152.2	157.3	168.1	182.5	202.7	228.9	268.2	324.4	392.6
125°	161.3	162.5	165.3	170.5	181.5	196.4	215.4	240.2	273.7	321.4	381.3
127.5°	170.9	172.6	176.3	182.9	194.5	209.4	227.7	250.5	279.7	320.0	371.0
130°	176.8	178.5	183.2	190.7	202.8	217.7	235.6	257.5	283.5	319.1	364.1
132.5°	181.5	183.7	189.1	197.6	210.2	225.1	243.0	263.5	287.6	319.1	358.5
135°	188.9	191.3	198.1	207.4	219.4	235.0	252.9	271.9	293.2	319.1	351.9
137.5°	198.4	200.2	206.6	215.8	227.6	243.7	259.9	278.1	298.4	319.8	346.1
140°	203.9	205.6	212.6	221.8	232.8	248.3	265.0	282.3	300.7	320.3	343.4
142.5°	210.4	211.7	218.1	227.3	237.8	252.5	268.2	284.6	302.1	320.7	341.0
145°	220.0	221.2	226.9	235.0	245.4	258.6	273.7	288.0	303.6	320.3	337.6
147.5°	230.1	230.9	235.8	243.3	252.3	264.0	277.1	290.1	304.2	318.8	334.0
150°	236.2	237.3	241.4	248.8	256.9	266.7	279.4	291.4	304.2	317.4	331.2
152.5°	242.7	243.3	246.9	253.5	261.1	269.9	281.7	292.4	303.7	315.6	328.0
155°	251.2	251.2	254.6	260.3	266.1	274.2	284.0	293.2	302.5	312.3	322.6
157.5°	258.7	258.6	261.5	266.4	271.5	277.5	286.0	293.8	300.9	308.7	317.5
160°	263.9	263.3	265.6	269.6	274.2	279.4	286.9	293.8	299.5	306.5	313.4
162.5°	268.0	267.4	269.7	273.3	277.0	281.2	287.8	293.4	298.2	303.7	309.7
165°	274.2	273.1	274.8	277.6	279.9	283.5	288.0	292.7	296.1	299.5	304.2
167.5°	278.3	277.8	278.8	280.4	282.1	284.2	288.0	291.2	292.9	295.5	298.7
170°	281.1	280.5	281.1	282.3	283.5	285.2	288.0	290.3	291.4	293.2	295.5
172.5°	283.0	282.0	282.5	283.7	284.4	285.2	287.6	289.4	289.6	290.4	292.3
175°	285.2	284.0	284.6	285.2	285.2	285.2	286.9	288.0	287.4	287.4	288.0
177.5°	286.2	285.3	285.3	285.7	285.3	285.3	286.2	286.6	285.7	285.7	286.2
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1718.2	1720.6	1723.0	1724.1	1723.9	1723.6	1723.4	1723.2
5°	1709.6	1712.3	1715.1	1716.3	1716.0	1715.7	1715.4	1715.1
7.5°	1692.2	1695.0	1697.6	1698.8	1698.5	1698.2	1697.9	1697.6
10°	1677.6	1680.0	1682.4	1683.5	1683.2	1682.9	1682.6	1682.3
12.5°	1658.1	1660.0	1661.9	1662.9	1662.8	1662.7	1662.7	1662.6
15°	1624.0	1625.5	1627.0	1627.8	1627.8	1627.8	1627.8	1627.8
17.5°	1584.4	1586.2	1588.1	1588.3	1586.8	1585.3	1583.8	1582.3
20°	1554.3	1556.4	1558.5	1558.8	1557.3	1555.8	1554.3	1552.8
22.5°	1520.1	1521.6	1522.9	1523.1	1522.1	1521.1	1520.0	1518.9
25°	1465.4	1466.0	1466.6	1466.4	1465.5	1464.6	1463.7	1462.8
27.5°	1408.0	1408.1	1408.3	1407.9	1406.9	1406.0	1405.1	1404.2
30°	1366.1	1365.5	1364.9	1364.2	1363.3	1362.4	1361.5	1360.6
32.5°	1323.7	1322.6	1321.6	1320.2	1318.6	1317.0	1315.2	1313.6
35°	1258.0	1256.5	1255.0	1253.0	1250.6	1248.2	1245.8	1243.3
37.5°	1188.9	1186.7	1184.5	1182.7	1181.2	1179.8	1178.4	1177.1
40°	1141.0	1138.3	1135.6	1133.8	1132.9	1132.0	1131.0	1130.1
42.5°	1093.6	1091.1	1088.6	1086.6	1085.3	1083.9	1082.5	1081.1
45°	1023.4	1019.8	1016.1	1013.8	1012.9	1012.0	1011.1	1010.2
47.5°	949.4	945.6	942.0	939.1	937.0	934.8	932.7	930.6
50°	898.7	894.7	890.8	887.8	885.7	883.5	881.4	879.3
52.5°	849.5	846.1	842.6	839.7	837.3	835.0	832.6	830.2
55°	773.0	770.2	767.5	765.1	763.0	760.8	758.7	756.6
57.5°	697.0	693.5	689.9	687.6	686.5	685.3	684.2	683.0
60°	645.6	642.6	639.5	636.9	634.8	632.7	630.6	628.4
62.5°	596.0	592.8	589.5	587.0	585.4	583.8	582.1	580.5
65°	518.1	515.3	512.6	510.6	509.4	508.2	507.0	505.7
67.5°	443.6	441.3	439.0	437.5	436.8	436.1	435.4	434.6
70°	394.5	392.6	390.8	389.3	388.1	386.9	385.7	384.5
72.5°	348.2	346.1	344.1	342.4	341.2	340.0	338.8	337.6
75°	276.3	275.4	274.5	273.4	272.2	270.9	269.7	268.5
77.5°	210.5	210.0	209.4	208.7	207.8	207.0	206.1	205.3
80°	168.4	168.1	167.8	167.3	166.7	166.1	165.5	164.9
82.5°	128.7	128.2	127.6	127.2	127.1	127.0	126.9	126.7
85°	75.7	75.4	75.1	74.6	74.0	73.4	72.8	72.2
87.5°	30.4	30.5	30.7	30.6	30.2	29.7	29.3	28.8
90°	10.4	10.9	11.5	12.6	12.6	12.6	13.2	13.2
92.5°	102.1	74.1	55.7	47.3	39.9	38.5	37.7	36.8
95°	414.1	326.6	255.8	207.4	166.5	149.2	144.6	135.4
97.5°	616.8	555.4	486.5	419.1	383.5	351.2	334.6	327.2
100°	708.5	680.3	621.0	561.1	521.3	479.9	458.6	449.3
102.5°	739.4	756.8	728.3	687.8	645.3	615.8	592.7	585.7
105°	721.2	800.1	825.5	819.1	800.7	781.7	770.2	763.3
107.5°	656.2	761.5	826.7	856.7	866.1	866.0	862.1	857.5
110°	608.3	717.8	799.0	848.0	873.8	884.8	888.9	888.9



TEST NUMBER: P333267-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	570.6	674.5	756.6	814.4	852.2	871.0	881.0	885.1
115°	523.0	612.4	691.3	754.1	799.0	826.7	842.7	850.3
117.5°	492.4	569.4	637.3	695.0	739.9	768.5	784.5	789.1
120°	475.8	544.9	608.3	659.0	701.7	729.3	744.9	749.4
122.5°	463.4	527.5	583.9	631.4	669.3	694.7	710.2	714.4
125°	445.2	504.0	554.2	595.6	627.9	651.6	664.2	669.9
127.5°	426.9	481.7	528.5	567.3	596.5	617.4	629.3	632.0
130°	415.4	466.1	511.0	548.4	577.2	596.2	607.7	611.2
132.5°	403.8	451.3	492.1	528.2	556.9	575.9	586.5	590.5
135°	388.8	428.6	465.4	498.3	523.6	542.6	553.0	556.4
137.5°	376.2	408.3	439.0	466.9	489.5	506.9	516.3	520.2
140°	369.2	396.4	422.8	447.1	468.4	483.3	491.9	494.8
142.5°	363.2	386.2	409.0	430.0	448.1	460.7	468.9	471.3
145°	355.5	373.2	391.1	406.7	420.5	430.3	436.7	439.0
147.5°	348.1	362.5	376.3	388.0	399.0	406.8	410.5	411.5
150°	343.9	356.6	367.5	377.9	386.6	393.4	395.8	396.4
152.5°	339.3	350.6	360.6	368.7	376.0	381.4	383.7	384.4
155°	332.3	341.6	349.6	356.0	361.7	365.8	367.5	368.1
157.5°	325.5	333.1	339.3	344.3	348.7	352.0	353.7	353.6
160°	320.8	326.6	332.3	336.4	340.4	343.4	344.5	343.9
162.5°	315.8	321.1	325.9	329.5	332.6	335.1	335.3	335.2
165°	308.7	312.8	316.3	319.1	321.4	322.6	322.6	322.6
167.5°	302.1	304.8	307.4	309.4	310.6	311.6	311.1	311.0
170°	298.4	300.1	301.8	303.0	304.2	304.8	304.8	304.2
172.5°	294.3	296.0	297.2	297.9	298.2	299.2	298.3	297.7
175°	289.7	289.7	290.9	290.9	290.9	291.4	290.3	289.7
177.5°	286.6	287.1	287.1	287.1	286.6	287.1	285.7	285.7
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7

(END OF REPORT)