

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: P333621-927

Luminaire Tested: **S125RDIP-S1270D590U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333621-927  
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: S125RDIP-S1270D590U927-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5545.3 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

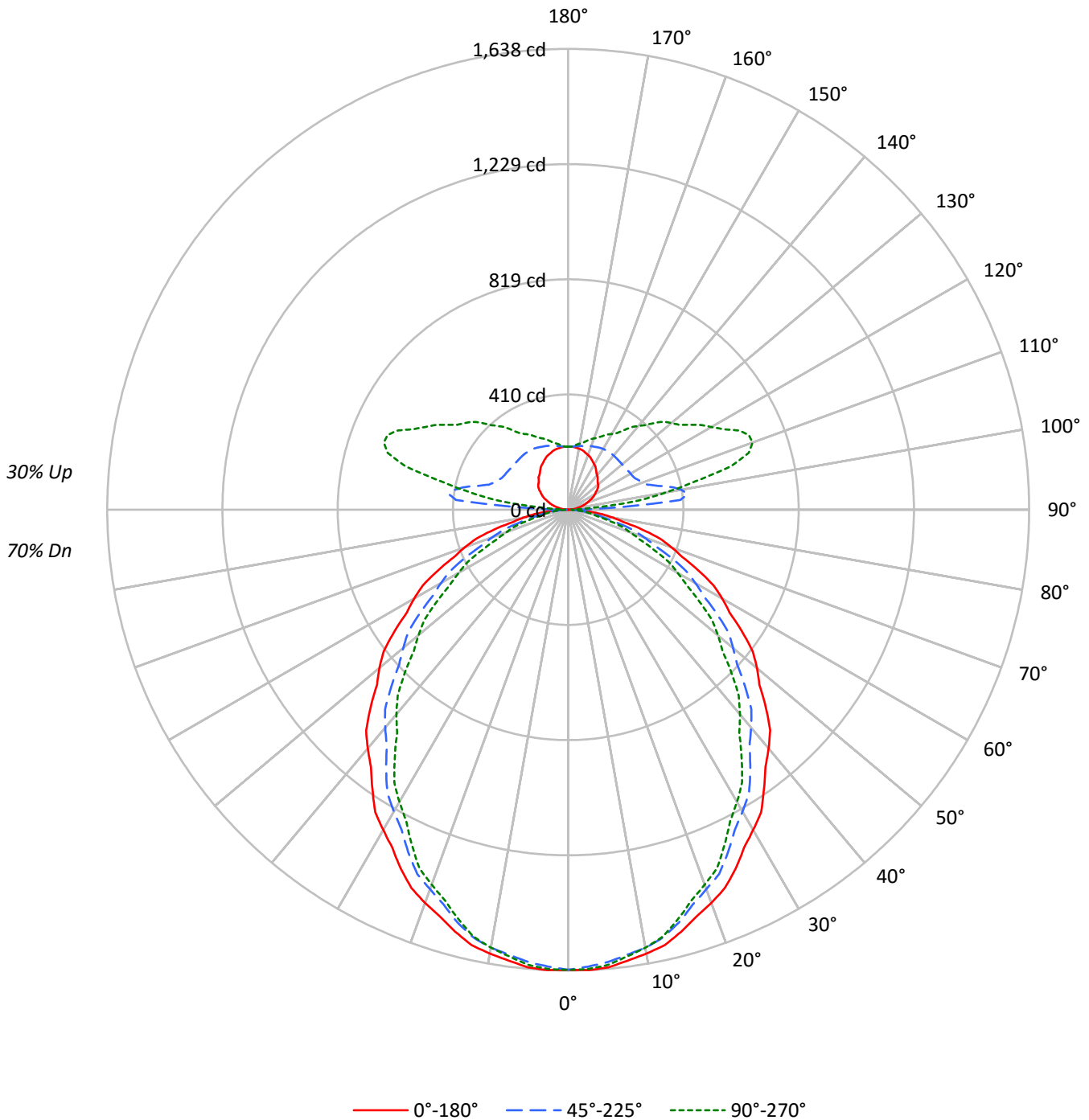
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	103	98	94	91	97	93	90	86	83	81	78	74	72	71	66	65	63	59
2	94	86	80	75	88	82	76	71	73	69	65	66	62	59	59	56	54	50
3	86	76	69	63	81	72	65	60	65	60	55	58	54	51	52	49	46	43
4	79	68	59	53	74	64	57	51	58	52	47	52	47	44	47	43	40	37
5	72	60	52	46	68	58	50	44	52	46	41	47	42	38	42	38	35	32
6	67	54	46	40	63	52	44	39	47	41	36	43	37	34	38	34	31	28
7	62	49	41	35	58	47	40	34	43	37	32	39	34	30	35	31	28	25
8	58	45	37	32	54	43	36	31	39	33	29	36	31	27	32	28	25	23
9	54	41	34	28	51	39	32	28	36	30	26	33	28	24	30	26	23	21
10	50	38	31	26	48	36	30	25	33	27	23	31	26	22	28	24	21	19

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

	0°	45°	90°
0°	10561	10561	10561
5°	10585	10466	10529
10°	10506	10368	10368
15°	10380	10158	10075
20°	10221	9864	9745
25°	10033	9576	9365
30°	9801	9238	8944
35°	9563	8891	8472
40°	9340	8528	8008
45°	9070	8122	7501
50°	8799	7681	6974
55°	8483	7260	6411
60°	8169	6748	5807
65°	7795	6154	5115
70°	7370	5410	4409
75°	6780	4561	3666
80°	5973	3582	3080
85°	5039	2927	2749



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.8	2.8
10°-20°	429.7	7.7
20°-30°	623.1	11.2
30°-40°	710.2	12.8
40°-50°	692.3	12.5
50°-60°	582.7	10.5
60°-70°	408.5	7.4
70°-80°	210.0	3.8
80°-90°	54.3	1.0
90°-100°	162.5	2.9
100°-110°	349.2	6.3
110°-120°	327.8	5.9
120°-130°	265.6	4.8
130°-140°	213.2	3.8
140°-150°	160.9	2.9
150°-160°	113.2	2.0
160°-170°	66.7	1.2
170°-180°	21.7	0.4
0°-30°	1206.6	21.8
0°-40°	1916.8	34.6
0°-60°	3191.8	57.6
0°-90°	3864.5	69.7
90°-120°	839.5	15.1
90°-150°	1479.1	26.7
90°-180°	1681.0	30.3
0°-180°	5545.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1635	1635	1635	1635	1635	
5°	1633	1627	1614	1626	1624	155
15°	1552	1544	1519	1517	1507	437
25°	1408	1388	1344	1328	1314	648
35°	1213	1182	1128	1093	1074	759
45°	993	955	889	842	821	766
55°	753	712	645	591	569	674
65°	510	467	403	355	335	505
75°	272	234	183	157	147	288
85°	68	47	40	38	37	76
90°	0	4	7	9	10	4
95°	15	44	400	182	106	16
105°	51	71	328	645	599	54
115°	91	110	263	567	667	90
125°	126	148	252	451	526	112
135°	148	178	250	378	436	115
145°	173	198	251	313	344	108
155°	197	212	245	277	289	91
165°	215	221	235	249	253	61
175°	224	224	226	228	227	21
180°	224	224	224	224	224	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3
2.5°	1638.2	1637.6	1636.9	1636.3	1635.6	1634.2	1632.0	1629.8	1627.6	1625.4	1627.6
5°	1632.8	1631.7	1630.6	1629.5	1628.4	1626.4	1623.3	1620.3	1617.3	1614.3	1617.0
7.5°	1616.8	1615.7	1614.7	1613.6	1612.6	1610.3	1606.6	1603.0	1599.4	1595.8	1597.7
10°	1602.0	1601.1	1600.3	1599.5	1598.6	1596.3	1592.4	1588.6	1584.8	1581.0	1581.8
12.5°	1585.2	1584.1	1583.0	1582.0	1581.0	1577.9	1572.7	1567.6	1562.3	1557.2	1557.8
15°	1552.5	1550.9	1549.3	1547.6	1545.9	1542.2	1536.4	1530.7	1525.0	1519.2	1518.9
17.5°	1515.7	1513.2	1510.7	1508.2	1505.6	1500.7	1493.5	1486.2	1479.0	1471.7	1470.4
20°	1487.1	1484.3	1481.5	1478.8	1476.1	1470.3	1461.6	1452.8	1444.0	1435.2	1433.8
22.5°	1455.5	1452.7	1449.9	1447.2	1444.5	1438.5	1429.3	1420.1	1410.8	1401.6	1398.9
25°	1408.0	1403.9	1399.8	1395.7	1391.5	1384.4	1374.3	1364.1	1353.9	1343.8	1340.2
27.5°	1353.7	1348.7	1343.7	1338.7	1333.7	1325.8	1314.9	1304.0	1293.2	1282.3	1277.3
30°	1314.2	1308.9	1303.7	1298.5	1293.3	1284.9	1273.4	1261.9	1250.3	1238.8	1232.5
32.5°	1275.7	1269.6	1263.5	1257.4	1251.3	1242.3	1230.6	1218.9	1207.0	1195.3	1188.4
35°	1212.9	1206.3	1199.7	1193.1	1186.5	1177.0	1164.7	1152.4	1140.0	1127.7	1119.7
37.5°	1151.4	1143.4	1135.4	1127.4	1119.3	1108.9	1096.2	1083.5	1070.7	1058.0	1048.5
40°	1107.9	1099.6	1091.4	1083.2	1075.0	1064.2	1051.1	1037.9	1024.7	1011.5	1001.2
42.5°	1062.5	1054.0	1045.5	1037.0	1028.6	1017.6	1004.0	990.4	976.8	963.1	953.2
45°	993.0	985.1	977.1	969.2	961.2	949.7	934.5	919.5	904.4	889.3	878.3
47.5°	921.1	912.8	904.4	896.0	887.6	875.8	860.5	845.3	830.1	814.9	803.6
50°	875.7	866.6	857.5	848.5	839.5	827.1	811.4	795.8	780.1	764.5	753.0
52.5°	826.2	817.0	807.7	798.4	789.2	777.1	762.4	747.7	732.8	718.1	705.7
55°	753.4	744.7	735.9	727.1	718.3	706.2	690.9	675.5	660.1	644.8	632.4
57.5°	679.8	670.4	661.0	651.6	642.2	630.2	615.4	600.5	585.7	570.8	558.8
60°	632.4	622.7	613.1	603.6	594.0	581.7	566.9	552.1	537.3	522.4	510.4
62.5°	582.0	572.8	563.6	554.4	545.3	533.2	518.2	503.1	488.1	473.0	461.8
65°	510.1	500.7	491.5	482.1	472.8	460.8	446.3	431.7	417.2	402.7	391.7
67.5°	438.7	429.4	420.0	410.7	401.4	389.8	375.8	361.9	347.9	334.0	323.9
70°	390.3	381.0	371.6	362.3	353.0	341.4	327.7	314.0	300.2	286.5	278.1
72.5°	342.9	333.7	324.6	315.5	306.4	295.4	282.6	269.7	256.9	244.1	236.2
75°	271.7	263.5	255.2	247.0	238.8	228.9	217.4	205.9	194.3	182.8	176.7
77.5°	201.1	194.5	187.9	181.3	174.8	166.8	157.6	148.4	139.2	129.9	125.7
80°	160.6	154.0	147.4	140.8	134.2	127.1	119.4	111.7	104.0	96.3	93.9
82.5°	121.0	115.1	109.2	103.2	97.4	91.7	86.4	81.2	75.9	70.7	69.5
85°	68.0	63.0	58.1	53.1	48.2	45.0	43.6	42.3	40.9	39.5	39.2
87.5°	22.8	21.4	20.0	18.7	17.3	16.6	16.5	16.4	16.3	16.2	16.3
90°	0.5	0.9	1.8	2.7	3.6	4.5	5.0	5.9	6.3	7.2	7.7
92.5°	5.5	6.7	10.5	16.1	23.8	37.1	61.7	103.1	148.1	145.7	118.0
95°	14.9	15.4	19.0	23.9	33.9	54.3	102.6	202.0	326.7	400.4	391.8
97.5°	24.8	25.3	27.8	32.8	41.7	56.4	88.4	161.2	291.8	427.5	495.7
100°	31.6	32.6	34.4	39.3	47.9	61.5	87.7	146.4	260.3	408.1	521.0
102.5°	39.2	39.8	41.2	46.6	54.4	67.6	90.9	140.3	236.4	373.7	505.8
105°	51.1	51.1	53.3	57.8	65.0	77.7	97.6	137.8	213.3	327.6	457.3
107.5°	62.7	63.5	65.7	69.4	76.9	88.3	107.6	142.0	203.5	295.9	407.8
110°	71.0	71.9	73.7	77.7	84.5	96.3	114.8	145.9	200.7	281.1	379.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	79.3	80.2	81.6	85.7	92.4	103.9	121.7	151.0	200.7	272.4	358.6
115°	91.3	92.2	93.6	97.6	104.4	115.7	132.4	158.6	202.0	263.0	335.7
117.5°	102.1	103.5	105.0	109.0	116.7	127.6	143.5	167.3	204.9	258.4	322.1
120°	109.3	110.7	112.5	116.6	124.3	135.5	151.4	173.1	207.9	256.2	314.5
122.5°	116.9	118.0	119.4	123.4	131.9	143.1	159.0	179.6	210.4	254.4	308.0
125°	126.5	127.5	129.7	133.7	142.4	154.1	169.0	188.5	214.7	252.2	299.1
127.5°	134.0	135.4	138.3	143.5	152.6	164.3	178.6	196.5	219.4	251.0	291.0
130°	138.7	140.1	143.7	149.6	159.1	170.8	184.8	202.0	222.4	250.3	285.6
132.5°	142.4	144.1	148.4	155.0	164.9	176.6	190.6	206.7	225.6	250.3	281.2
135°	148.2	150.0	155.4	162.7	172.1	184.3	198.4	213.3	230.0	250.3	276.1
137.5°	155.7	157.0	162.1	169.3	178.6	191.2	203.9	218.2	234.1	250.9	271.5
140°	159.9	161.3	166.8	174.0	182.6	194.8	207.9	221.4	235.9	251.3	269.3
142.5°	165.0	166.0	171.1	178.3	186.6	198.0	210.4	223.2	236.9	251.6	267.5
145°	172.6	173.5	178.0	184.3	192.5	202.9	214.7	225.9	238.1	251.3	264.8
147.5°	180.5	181.1	185.0	190.8	197.9	207.1	217.4	227.6	238.6	250.1	262.0
150°	185.3	186.2	189.3	195.2	201.5	209.2	219.2	228.6	238.6	249.0	259.8
152.5°	190.4	190.8	193.7	198.8	204.8	211.8	220.9	229.3	238.2	247.6	257.3
155°	197.0	197.0	199.7	204.2	208.7	215.1	222.8	230.0	237.3	244.9	253.0
157.5°	203.0	202.9	205.1	209.0	212.9	217.7	224.3	230.4	236.1	242.2	249.1
160°	207.0	206.5	208.3	211.5	215.1	219.2	225.1	230.4	235.0	240.4	245.8
162.5°	210.2	209.8	211.6	214.4	217.3	220.6	225.8	230.1	233.9	238.2	243.0
165°	215.1	214.2	215.6	217.8	219.6	222.4	225.9	229.6	232.3	235.0	238.6
167.5°	218.3	217.9	218.7	220.0	221.3	222.9	225.9	228.5	229.7	231.8	234.3
170°	220.5	220.1	220.5	221.4	222.4	223.7	225.9	227.8	228.6	230.0	231.8
172.5°	222.0	221.2	221.6	222.5	223.1	223.7	225.6	227.0	227.2	227.8	229.3
175°	223.7	222.8	223.2	223.7	223.7	223.7	225.1	225.9	225.5	225.5	225.9
177.5°	224.5	223.8	223.8	224.1	223.8	223.8	224.5	224.8	224.1	224.1	224.5
180°	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3	1635.3
2.5°	1629.8	1632.0	1634.2	1635.1	1635.0	1634.7	1634.5	1634.3
5°	1619.8	1622.5	1625.2	1626.4	1625.8	1625.2	1624.7	1624.1
7.5°	1599.6	1601.6	1603.5	1604.1	1603.5	1602.9	1602.3	1601.7
10°	1582.5	1583.4	1584.2	1584.2	1583.4	1582.5	1581.8	1581.0
12.5°	1558.5	1559.0	1559.6	1559.3	1558.1	1556.8	1555.5	1554.3
15°	1518.6	1518.4	1518.1	1516.7	1514.3	1511.8	1509.3	1506.8
17.5°	1469.0	1467.6	1466.3	1464.6	1462.5	1460.5	1458.5	1456.4
20°	1432.4	1431.1	1429.7	1427.8	1425.3	1422.8	1420.4	1417.9
22.5°	1396.2	1393.5	1390.8	1388.5	1386.5	1384.4	1382.4	1380.4
25°	1336.6	1333.1	1329.5	1326.2	1323.2	1320.2	1317.2	1314.2
27.5°	1272.3	1267.3	1262.3	1258.4	1255.5	1252.5	1249.6	1246.7
30°	1226.2	1219.9	1213.5	1209.2	1206.7	1204.2	1201.7	1199.3
32.5°	1181.4	1174.4	1167.4	1162.4	1159.3	1156.1	1153.0	1149.9
35°	1111.7	1103.7	1095.8	1089.9	1086.1	1082.2	1078.4	1074.5
37.5°	1038.9	1029.4	1019.8	1013.1	1009.4	1005.7	1002.0	998.2
40°	990.7	980.2	969.9	963.0	959.6	956.4	953.1	949.8
42.5°	943.2	933.2	923.2	915.8	910.9	906.1	901.3	896.4
45°	867.3	856.3	845.3	837.8	833.7	829.6	825.5	821.3
47.5°	792.3	781.0	769.7	761.8	757.2	752.7	748.1	743.5
50°	741.5	729.9	718.4	710.6	706.5	702.3	698.2	694.1
52.5°	693.2	680.9	668.4	660.2	656.1	652.0	647.8	643.7
55°	620.0	607.7	595.3	586.9	582.6	578.1	573.8	569.4
57.5°	546.7	534.6	522.5	514.6	510.6	506.8	502.9	499.0
60°	498.3	486.2	474.1	466.0	461.9	457.8	453.7	449.6
62.5°	450.7	439.4	428.3	420.6	416.5	412.3	408.2	404.1
65°	380.7	369.7	358.7	351.2	347.1	342.9	338.8	334.7
67.5°	313.9	303.8	293.8	287.1	283.8	280.5	277.3	273.9
70°	269.5	261.0	252.5	246.6	243.3	240.0	236.7	233.5
72.5°	228.4	220.5	212.6	207.6	205.4	203.3	201.1	198.8
75°	170.7	164.7	158.7	154.6	152.7	150.8	148.9	146.9
77.5°	121.4	117.2	113.0	110.2	108.8	107.3	105.9	104.5
80°	91.4	89.0	86.4	84.9	84.4	83.8	83.3	82.8
82.5°	68.4	67.2	66.1	65.3	65.0	64.6	64.3	64.0
85°	39.0	38.7	38.4	38.2	37.9	37.6	37.3	37.1
87.5°	16.5	16.6	16.6	16.7	16.5	16.2	16.2	15.9
90°	8.2	8.6	9.0	9.9	9.9	9.9	10.4	10.4
92.5°	80.1	58.1	43.7	37.1	31.3	30.2	29.5	28.8
95°	324.9	256.2	200.7	162.7	130.6	117.0	113.4	106.2
97.5°	483.9	435.7	381.6	328.8	300.9	275.5	262.4	256.7
100°	555.8	533.7	487.1	440.1	408.9	376.4	359.7	352.4
102.5°	580.0	593.7	571.3	539.6	506.2	483.1	464.9	459.5
105°	565.8	627.6	647.5	642.5	628.1	613.2	604.2	598.7
107.5°	514.8	597.4	648.5	672.0	679.4	679.3	676.3	672.6
110°	477.2	563.1	626.8	665.2	685.5	694.1	697.3	697.3





TEST NUMBER: P333621-927

CATALOG NUMBER: S125RDIP-S1270D590U927-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	447.6	529.1	593.5	638.8	668.5	683.3	691.1	694.3
115°	410.3	480.4	542.2	591.5	626.8	648.5	661.1	667.0
117.5°	386.3	446.6	499.9	545.2	580.4	602.9	615.4	619.0
120°	373.3	427.5	477.2	517.0	550.4	572.1	584.3	587.9
122.5°	363.5	413.8	458.0	495.3	525.1	544.9	557.1	560.4
125°	349.3	395.4	434.7	467.2	492.6	511.1	521.0	525.5
127.5°	334.9	377.9	414.5	445.0	467.9	484.3	493.7	495.7
130°	325.8	365.6	400.8	430.2	452.8	467.7	476.7	479.4
132.5°	316.8	354.0	386.0	414.3	436.9	451.8	460.1	463.2
135°	305.0	336.2	365.1	390.9	410.7	425.6	433.8	436.5
137.5°	295.1	320.3	344.4	366.2	384.0	397.6	405.0	408.1
140°	289.6	310.9	331.7	350.7	367.4	379.1	385.9	388.2
142.5°	284.9	302.9	320.8	337.3	351.5	361.4	367.8	369.7
145°	278.8	292.8	306.8	319.0	329.9	337.5	342.5	344.4
147.5°	273.1	284.4	295.2	304.4	313.0	319.1	322.0	322.8
150°	269.7	279.7	288.3	296.4	303.2	308.6	310.5	310.9
152.5°	266.2	275.0	282.9	289.2	294.9	299.2	301.0	301.5
155°	260.7	268.0	274.3	279.2	283.8	286.9	288.3	288.8
157.5°	255.3	261.3	266.2	270.1	273.5	276.2	277.4	277.3
160°	251.7	256.2	260.7	263.9	267.0	269.3	270.2	269.7
162.5°	247.7	251.9	255.6	258.5	260.9	262.8	263.0	262.9
165°	242.2	245.3	248.1	250.3	252.2	253.0	253.0	253.0
167.5°	236.9	239.1	241.1	242.7	243.7	244.5	244.1	244.0
170°	234.1	235.4	236.8	237.7	238.6	239.1	239.1	238.6
172.5°	230.8	232.2	233.1	233.7	233.9	234.7	234.0	233.5
175°	227.3	227.3	228.2	228.2	228.2	228.6	227.8	227.3
177.5°	224.8	225.2	225.2	225.2	224.8	225.2	224.1	224.1
180°	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1

(END OF REPORT)