

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: P333585

Luminaire Tested: **S125RDIP-S1090D365U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333585  
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-S1090D365U835-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5538.1 lumens  
Efficiency: N/A  
Efficacy: 127.3 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

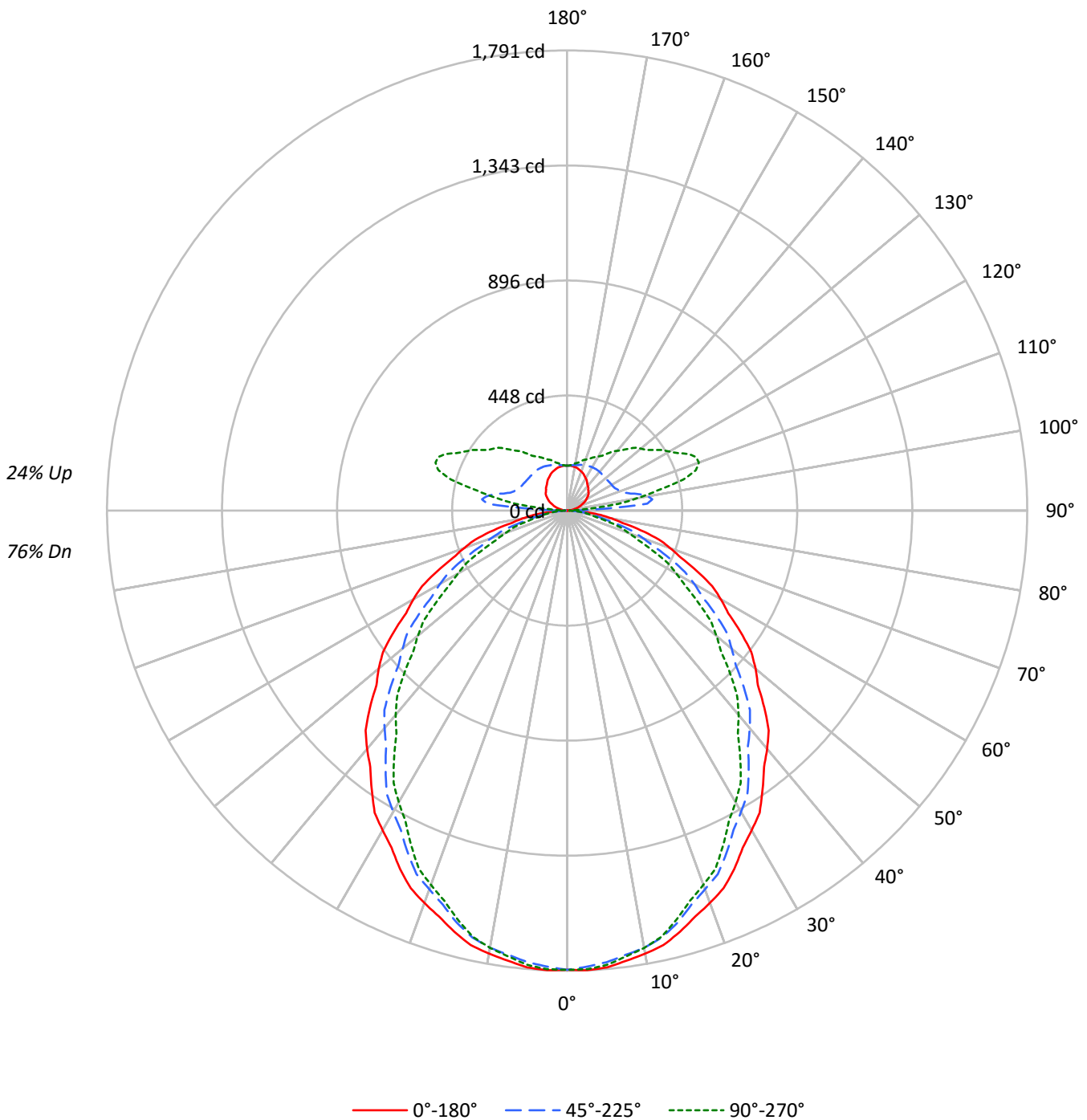
Input Watts (W): 43.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	80	80	80	76
1	104	100	96	92	99	95	92	88	87	84	81	79	77	75	72	70	69	65
2	95	87	81	76	90	84	78	73	76	72	68	70	66	63	63	61	58	55
3	87	77	70	64	83	74	67	62	68	62	58	62	57	54	56	53	50	47
4	80	69	61	54	76	66	58	53	60	54	49	55	50	46	51	47	43	40
5	73	61	53	47	70	59	51	46	54	48	43	50	45	40	46	41	38	35
6	68	55	47	41	64	53	46	40	49	43	38	45	40	36	42	37	34	31
7	63	50	42	36	60	48	41	35	45	38	34	41	36	32	38	33	30	28
8	59	46	38	32	56	44	37	32	41	35	30	38	32	28	35	30	27	25
9	55	42	34	29	52	41	33	28	38	31	27	35	30	26	32	28	24	22
10	51	39	31	26	49	37	30	26	35	29	25	32	27	23	30	26	22	20

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

	0°	45°	90°
0°	11544	11544	11544
5°	11570	11439	11509
10°	11482	11332	11332
15°	11346	11102	11012
20°	11171	10781	10652
25°	10967	10467	10236
30°	10712	10097	9775
35°	10452	9717	9260
40°	10209	9321	8752
45°	9913	8878	8199
50°	9616	8396	7623
55°	9272	7935	7007
60°	8928	7375	6347
65°	8520	6725	5590
70°	8055	5914	4817
75°	7411	4986	4007
80°	6527	3916	3362
85°	5498	3201	3001



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.1	3.0
10°-20°	469.7	8.5
20°-30°	681.1	12.3
30°-40°	776.2	14.0
40°-50°	756.6	13.7
50°-60°	636.9	11.5
60°-70°	446.5	8.1
70°-80°	229.5	4.1
80°-90°	58.9	1.1
90°-100°	127.1	2.3
100°-110°	273.1	4.9
110°-120°	256.3	4.6
120°-130°	207.7	3.8
130°-140°	166.7	3.0
140°-150°	125.8	2.3
150°-160°	88.6	1.6
160°-170°	52.2	0.9
170°-180°	17.0	0.3
0°-30°	1318.9	23.8
0°-40°	2095.1	37.8
0°-60°	3488.6	63.0
0°-90°	4223.5	76.3
90°-120°	656.5	11.9
90°-150°	1156.8	20.9
90°-180°	1315.0	23.7
0°-180°	5538.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1787	1787	1787	1787	1787	
5°	1785	1779	1764	1777	1775	169
15°	1697	1688	1660	1659	1647	478
25°	1539	1517	1469	1451	1436	708
35°	1326	1292	1232	1194	1174	830
45°	1085	1044	972	920	898	837
55°	824	778	705	646	622	736
65°	558	510	440	388	366	552
75°	297	256	200	171	161	314
85°	74	51	43	42	40	83
90°	0	3	6	7	8	4
95°	12	34	313	142	83	12
105°	40	56	256	504	468	42
115°	71	86	206	443	522	70
125°	99	116	197	353	411	88
135°	116	139	196	296	341	90
145°	135	155	196	245	269	85
155°	154	166	192	216	226	71
165°	168	173	184	195	198	47
175°	175	175	176	178	178	17
180°	175	175	175	175	175	



TEST NUMBER: P333585

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1790.6	1789.9	1789.2	1788.4	1787.7	1786.2	1783.8	1781.4	1779.0	1776.6	1779.0
5°	1784.7	1783.5	1782.3	1781.1	1779.9	1777.6	1774.3	1771.0	1767.7	1764.4	1767.4
7.5°	1767.1	1766.0	1764.8	1763.7	1762.5	1760.0	1756.0	1752.1	1748.1	1744.2	1746.3
10°	1750.9	1750.0	1749.1	1748.2	1747.3	1744.8	1740.6	1736.4	1732.2	1728.0	1728.9
12.5°	1732.5	1731.4	1730.3	1729.1	1728.0	1724.6	1719.0	1713.3	1707.7	1702.0	1702.7
15°	1696.9	1695.1	1693.3	1691.5	1689.7	1685.7	1679.4	1673.1	1666.8	1660.5	1660.2
17.5°	1656.7	1653.9	1651.2	1648.4	1645.6	1640.3	1632.4	1624.5	1616.5	1608.6	1607.1
20°	1625.4	1622.4	1619.4	1616.4	1613.4	1607.1	1597.5	1587.9	1578.3	1568.7	1567.2
22.5°	1590.8	1587.8	1584.8	1581.8	1578.8	1572.3	1562.2	1552.1	1542.0	1531.9	1529.0
25°	1539.0	1534.5	1530.0	1525.5	1521.0	1513.2	1502.1	1491.0	1479.9	1468.8	1464.9
27.5°	1479.6	1474.1	1468.6	1463.2	1457.7	1449.1	1437.2	1425.3	1413.4	1401.5	1396.1
30°	1436.4	1430.7	1425.0	1419.3	1413.6	1404.4	1391.8	1379.2	1366.6	1354.0	1347.1
32.5°	1394.2	1387.6	1380.9	1374.3	1367.6	1357.9	1345.0	1332.2	1319.3	1306.5	1298.9
35°	1325.7	1318.5	1311.3	1304.1	1296.9	1286.5	1273.0	1259.5	1246.0	1232.5	1223.8
37.5°	1258.4	1249.7	1240.9	1232.2	1223.4	1212.1	1198.1	1184.2	1170.3	1156.4	1145.9
40°	1210.9	1201.9	1192.9	1183.9	1174.9	1163.2	1148.8	1134.4	1120.0	1105.6	1094.2
42.5°	1161.2	1152.0	1142.8	1133.5	1124.3	1112.2	1097.3	1082.5	1067.6	1052.7	1041.8
45°	1085.4	1076.7	1068.0	1059.3	1050.6	1038.0	1021.5	1005.0	988.5	972.0	960.0
47.5°	1006.8	997.6	988.4	979.3	970.1	957.2	940.6	923.9	907.3	890.7	878.3
50°	957.1	947.2	937.3	927.4	917.5	904.0	886.9	869.8	852.7	835.6	823.0
52.5°	903.1	893.0	882.8	872.7	862.6	849.4	833.3	817.1	801.0	784.9	771.3
55°	823.5	813.9	804.3	794.7	785.1	771.9	755.1	738.3	721.5	704.7	691.2
57.5°	743.0	732.8	722.5	712.2	702.0	688.8	672.6	656.4	640.2	624.0	610.8
60°	691.2	680.7	670.2	659.7	649.2	635.8	619.6	603.4	587.2	571.0	557.8
62.5°	636.1	626.1	616.1	606.0	596.0	582.8	566.4	549.9	533.5	517.0	504.8
65°	557.5	547.3	537.1	526.9	516.7	503.7	487.8	471.9	456.0	440.1	428.1
67.5°	479.5	469.3	459.1	448.9	438.7	426.0	410.7	395.5	380.3	365.0	354.1
70°	426.6	416.4	406.2	396.0	385.8	373.2	358.2	343.2	328.2	313.2	303.9
72.5°	374.8	364.8	354.8	344.9	334.9	322.9	308.9	294.8	280.8	266.8	258.2
75°	297.0	288.0	279.0	270.0	261.0	250.2	237.6	225.0	212.4	199.8	193.2
77.5°	219.8	212.6	205.4	198.2	191.0	182.3	172.3	162.2	152.1	142.0	137.4
80°	175.5	168.3	161.1	153.9	146.7	138.9	130.5	122.1	113.7	105.3	102.6
82.5°	132.3	125.8	119.3	112.9	106.4	100.3	94.5	88.7	83.0	77.2	76.0
85°	74.2	68.8	63.4	58.0	52.6	49.2	47.7	46.2	44.7	43.2	42.9
87.5°	24.9	23.3	21.8	20.2	18.7	17.9	17.7	17.6	17.4	17.3	17.4
90°	0.4	0.7	1.4	2.1	2.8	3.5	3.9	4.6	4.9	5.7	6.0
92.5°	4.3	5.2	8.2	12.6	18.7	29.0	48.3	80.6	115.8	113.9	92.2
95°	11.7	12.0	14.8	18.7	26.5	42.4	80.2	158.0	255.5	313.1	306.4
97.5°	19.4	19.8	21.8	25.7	32.7	44.1	69.1	126.1	228.2	334.4	387.7
100°	24.7	25.4	26.9	30.7	37.5	48.1	68.6	114.5	203.6	319.1	407.5
102.5°	30.7	31.1	32.2	36.4	42.6	52.9	71.1	109.7	184.9	292.3	395.6
105°	39.9	39.9	41.7	45.2	50.9	60.8	76.3	107.8	166.8	256.2	357.7
107.5°	49.0	49.7	51.4	54.3	60.2	69.1	84.1	111.0	159.2	231.4	318.9
110°	55.5	56.2	57.6	60.8	66.1	75.3	89.8	114.2	156.9	219.8	296.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	62.0	62.7	63.8	67.0	72.3	81.2	95.1	118.1	156.9	213.0	280.5
115°	71.4	72.1	73.2	76.3	81.6	90.5	103.6	124.0	158.0	205.7	262.6
117.5°	79.9	80.9	82.1	85.2	91.3	99.8	112.2	130.8	160.3	202.1	251.9
120°	85.5	86.6	88.0	91.2	97.2	106.0	118.4	135.4	162.6	200.4	246.0
122.5°	91.5	92.2	93.4	96.6	103.1	112.0	124.3	140.4	164.5	199.0	240.9
125°	99.0	99.7	101.4	104.6	111.3	120.5	132.2	147.4	167.9	197.2	234.0
127.5°	104.8	105.9	108.1	112.2	119.3	128.5	139.7	153.7	171.6	196.4	227.6
130°	108.5	109.6	112.4	117.0	124.4	133.6	144.5	158.0	173.9	195.8	223.4
132.5°	111.3	112.7	116.1	121.2	128.9	138.1	149.1	161.7	176.4	195.8	220.0
135°	115.9	117.3	121.6	127.2	134.7	144.2	155.1	166.8	179.9	195.8	215.9
137.5°	121.7	122.8	126.7	132.4	139.7	149.5	159.5	170.6	183.1	196.2	212.3
140°	125.1	126.2	130.4	136.1	142.8	152.3	162.6	173.2	184.5	196.5	210.6
142.5°	129.1	129.8	133.8	139.5	145.9	154.9	164.5	174.6	185.3	196.8	209.2
145°	135.0	135.7	139.2	144.2	150.6	158.7	167.9	176.7	186.2	196.5	207.1
147.5°	141.2	141.6	144.7	149.3	154.8	161.9	170.0	178.0	186.6	195.6	204.9
150°	144.9	145.6	148.1	152.7	157.6	163.6	171.4	178.8	186.6	194.7	203.2
152.5°	148.9	149.3	151.5	155.5	160.2	165.6	172.8	179.4	186.3	193.6	201.2
155°	154.1	154.1	156.2	159.7	163.3	168.2	174.2	179.9	185.5	191.6	197.9
157.5°	158.8	158.7	160.4	163.4	166.5	170.3	175.4	180.2	184.6	189.4	194.8
160°	161.9	161.5	162.9	165.4	168.2	171.4	176.0	180.2	183.8	188.0	192.3
162.5°	164.4	164.1	165.5	167.7	169.9	172.5	176.6	180.0	182.9	186.3	190.0
165°	168.2	167.5	168.6	170.3	171.8	173.9	176.7	179.5	181.7	183.8	186.6
167.5°	170.8	170.4	171.1	172.0	173.0	174.4	176.7	178.7	179.7	181.3	183.3
170°	172.5	172.1	172.5	173.2	173.9	174.9	176.7	178.1	178.8	179.9	181.3
172.5°	173.6	173.0	173.3	174.0	174.4	174.9	176.4	177.6	177.7	178.2	179.3
175°	174.9	174.2	174.6	174.9	174.9	174.9	176.0	176.7	176.4	176.4	176.7
177.5°	175.6	175.0	175.0	175.3	175.0	175.0	175.6	175.9	175.3	175.3	175.6
180°	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1781.4	1783.8	1786.2	1787.2	1787.0	1786.8	1786.5	1786.3
5°	1770.4	1773.4	1776.4	1777.6	1777.0	1776.4	1775.8	1775.2
7.5°	1748.4	1750.5	1752.6	1753.3	1752.6	1752.0	1751.3	1750.6
10°	1729.8	1730.7	1731.6	1731.6	1730.7	1729.8	1728.9	1728.0
12.5°	1703.4	1704.0	1704.7	1704.3	1702.9	1701.6	1700.2	1698.8
15°	1659.9	1659.6	1659.3	1657.8	1655.1	1652.4	1649.7	1647.0
17.5°	1605.6	1604.1	1602.6	1600.8	1598.5	1596.3	1594.1	1591.9
20°	1565.7	1564.2	1562.7	1560.6	1557.9	1555.2	1552.5	1549.8
22.5°	1526.1	1523.1	1520.2	1517.6	1515.4	1513.2	1510.9	1508.7
25°	1461.0	1457.1	1453.2	1449.6	1446.3	1443.0	1439.7	1436.4
27.5°	1390.6	1385.2	1379.7	1375.4	1372.2	1369.0	1365.8	1362.7
30°	1340.2	1333.3	1326.4	1321.6	1318.9	1316.2	1313.5	1310.8
32.5°	1291.3	1283.6	1276.0	1270.5	1267.1	1263.7	1260.2	1256.8
35°	1215.1	1206.4	1197.7	1191.3	1187.1	1182.9	1178.7	1174.5
37.5°	1135.5	1125.1	1114.6	1107.4	1103.3	1099.2	1095.1	1091.0
40°	1082.8	1071.4	1060.0	1052.5	1048.9	1045.3	1041.7	1038.1
42.5°	1030.9	1019.9	1009.0	1000.9	995.6	990.4	985.1	979.8
45°	948.0	936.0	924.0	915.7	911.2	906.7	902.2	897.7
47.5°	866.0	853.6	841.3	832.6	827.6	822.6	817.7	812.7
50°	810.4	797.8	785.2	776.7	772.2	767.7	763.2	758.7
52.5°	757.8	744.2	730.6	721.6	717.1	712.6	708.1	703.6
55°	677.7	664.2	650.7	641.5	636.7	631.9	627.1	622.3
57.5°	597.6	584.4	571.2	562.4	558.2	553.9	549.6	545.4
60°	544.6	531.4	518.2	509.4	504.9	500.4	495.9	491.4
62.5°	492.6	480.3	468.1	459.7	455.2	450.7	446.2	441.7
65°	416.1	404.1	392.1	383.8	379.3	374.8	370.3	365.8
67.5°	343.1	332.1	321.1	313.8	310.2	306.6	303.0	299.4
70°	294.6	285.3	276.0	269.5	265.9	262.3	258.7	255.1
72.5°	249.6	241.0	232.4	226.9	224.5	222.1	219.7	217.3
75°	186.6	180.0	173.4	169.0	166.9	164.8	162.7	160.6
77.5°	132.8	128.2	123.5	120.4	118.9	117.3	115.8	114.2
80°	99.9	97.2	94.5	92.8	92.2	91.6	91.0	90.4
82.5°	74.7	73.4	72.2	71.4	71.0	70.6	70.3	69.9
85°	42.6	42.3	42.0	41.7	41.4	41.1	40.8	40.5
87.5°	17.5	17.5	17.6	17.6	17.4	17.2	17.0	16.7
90°	6.4	6.7	7.1	7.8	7.8	7.8	8.1	8.1
92.5°	62.6	45.4	34.2	29.0	24.5	23.6	23.1	22.5
95°	254.1	200.4	156.9	127.2	102.1	91.5	88.7	83.1
97.5°	378.4	340.8	298.4	257.1	235.3	215.5	205.3	200.7
100°	434.7	417.4	381.0	344.2	319.8	294.4	281.3	275.7
102.5°	453.6	464.3	446.9	422.0	395.9	377.8	363.6	359.4
105°	442.5	490.9	506.4	502.6	491.2	479.6	472.5	468.3
107.5°	402.6	467.2	507.1	525.6	531.3	531.3	528.9	526.1
110°	373.2	440.4	490.2	520.2	536.1	542.8	545.3	545.3





TEST NUMBER: P333585

CATALOG NUMBER: S125RDIP-S1090D365U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	350.0	413.8	464.2	499.6	522.8	534.4	540.5	543.1
115°	320.9	375.7	424.1	462.6	490.2	507.1	517.0	521.6
117.5°	302.1	349.3	391.0	426.4	453.9	471.5	481.3	484.1
120°	291.9	334.3	373.2	404.3	430.5	447.4	457.0	459.8
122.5°	284.3	323.6	358.2	387.3	410.7	426.2	435.8	438.3
125°	273.2	309.2	340.0	365.4	385.2	399.7	407.5	411.0
127.5°	261.9	295.5	324.2	348.0	366.0	378.8	386.1	387.7
130°	254.8	285.9	313.5	336.5	354.1	365.8	372.9	375.0
132.5°	247.7	276.9	301.9	324.0	341.7	353.3	359.8	362.2
135°	238.6	262.9	285.6	305.7	321.3	332.9	339.3	341.4
137.5°	230.8	250.5	269.3	286.4	300.3	310.9	316.8	319.1
140°	226.5	243.1	259.4	274.2	287.3	296.5	301.8	303.6
142.5°	222.9	236.9	250.9	263.8	274.9	282.7	287.7	289.2
145°	218.1	229.0	240.0	249.5	258.0	264.0	267.9	269.3
147.5°	213.5	222.4	230.9	238.1	244.8	249.6	251.8	252.5
150°	211.0	218.8	225.5	231.8	237.1	241.4	242.8	243.1
152.5°	208.2	215.1	221.2	226.2	230.6	234.0	235.4	235.8
155°	203.9	209.6	214.5	218.4	221.9	224.4	225.5	225.8
157.5°	199.7	204.3	208.2	211.2	214.0	216.0	217.0	216.9
160°	196.9	200.4	203.9	206.4	208.9	210.6	211.3	211.0
162.5°	193.7	197.0	200.0	202.2	204.1	205.5	205.7	205.6
165°	189.4	191.9	194.0	195.8	197.2	197.9	197.9	197.9
167.5°	185.3	187.0	188.6	189.9	190.6	191.2	190.9	190.8
170°	183.1	184.1	185.2	185.9	186.6	187.0	187.0	186.6
172.5°	180.5	181.6	182.4	182.8	182.9	183.6	183.0	182.6
175°	177.8	177.8	178.5	178.5	178.5	178.8	178.1	177.8
177.5°	175.9	176.1	176.1	176.1	175.9	176.1	175.3	175.3
180°	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3

(END OF REPORT)