

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: P333591-927

Luminaire Tested: **S125RDIP-S1090D590U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333591-927  
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-S1090D590U927-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 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: 5027.1 lumens  
Efficiency: N/A  
Efficacy: 103.0 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

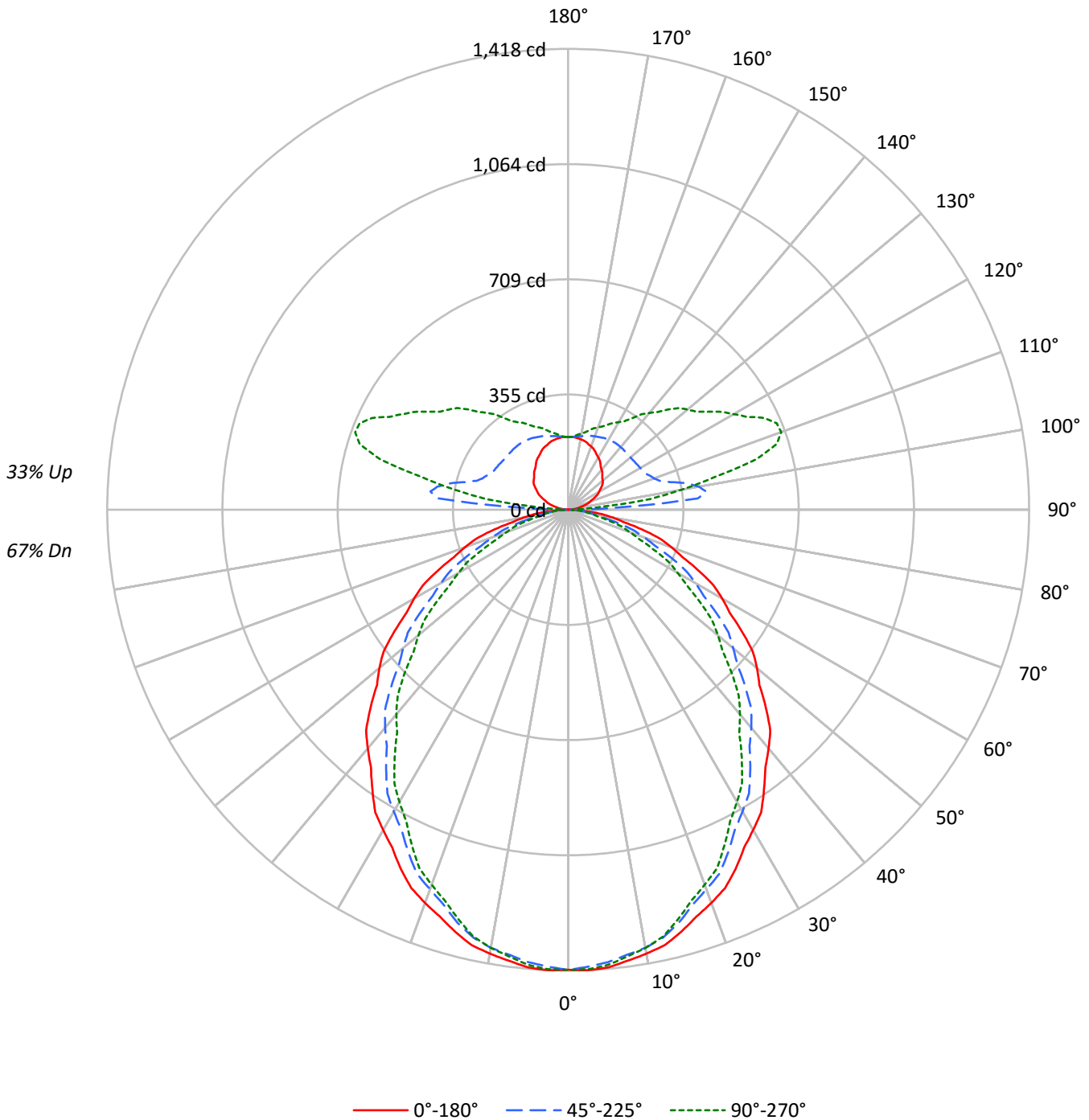
Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	111	111	111	111	105	105	105	105	93	93	93	81	81	81	71	71	71
1	102	97	94	90	96	92	89	86	82	79	77	72	70	69	64	62	61
2	93	85	79	74	87	81	75	71	72	68	64	64	61	58	56	54	52
3	85	75	68	62	80	71	65	59	64	58	54	57	53	49	50	47	44
4	78	67	59	53	73	63	56	51	57	51	46	51	46	42	45	41	38
5	72	60	52	46	67	57	49	44	51	45	40	46	41	37	41	37	34
6	66	54	46	40	62	51	44	38	46	40	35	41	36	33	37	33	30
7	61	49	41	35	58	46	39	34	42	36	31	38	33	29	34	30	27
8	57	45	37	31	54	42	35	30	38	32	28	35	30	26	31	27	24
9	53	41	33	28	50	39	32	27	35	29	25	32	27	23	29	25	22
10	50	38	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20

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

	0°	45°	90°
0°	9144	9144	9144
5°	9166	9061	9117
10°	9096	8977	8977
15°	8988	8795	8723
20°	8849	8541	8438
25°	8688	8292	8109
30°	8486	7999	7744
35°	8280	7698	7335
40°	8088	7384	6933
45°	7853	7033	6495
50°	7618	6650	6038
55°	7346	6286	5551
60°	7073	5842	5028
65°	6748	5327	4429
70°	6381	4685	3816
75°	5871	3950	3174
80°	5170	3102	2663
85°	4357	2534	2379



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.1	2.6
10°-20°	372.1	7.4
20°-30°	539.6	10.7
30°-40°	614.9	12.2
40°-50°	599.4	11.9
50°-60°	504.6	10.0
60°-70°	353.7	7.0
70°-80°	181.8	3.6
80°-90°	47.2	0.9
90°-100°	162.5	3.2
100°-110°	349.2	6.9
110°-120°	327.8	6.5
120°-130°	265.6	5.3
130°-140°	213.2	4.2
140°-150°	160.9	3.2
150°-160°	113.2	2.3
160°-170°	66.7	1.3
170°-180°	21.7	0.4
0°-30°	1044.8	20.8
0°-40°	1659.7	33.0
0°-60°	2763.6	55.0
0°-90°	3346.3	66.6
90°-120°	839.5	16.7
90°-150°	1479.1	29.4
90°-180°	1681.0	33.4
0°-180°	5027.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1414	1409	1398	1408	1406	134
15°	1344	1337	1315	1314	1305	379
25°	1219	1202	1164	1150	1138	561
35°	1050	1023	976	946	930	657
45°	860	827	770	729	711	663
55°	652	617	558	512	493	583
65°	442	404	349	307	290	437
75°	235	202	158	136	127	249
85°	59	40	34	33	32	66
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°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1418.5	1417.9	1417.4	1416.7	1416.2	1415.0	1413.1	1411.2	1409.3	1407.4	1409.3
5°	1413.8	1412.9	1411.9	1411.0	1410.0	1408.2	1405.6	1403.0	1400.3	1397.7	1400.1
7.5°	1399.9	1399.0	1398.0	1397.2	1396.2	1394.2	1391.1	1388.0	1384.8	1381.7	1383.4
10°	1387.0	1386.3	1385.6	1384.9	1384.2	1382.2	1378.9	1375.5	1372.2	1368.9	1369.6
12.5°	1372.5	1371.6	1370.7	1369.8	1368.9	1366.2	1361.8	1357.2	1352.8	1348.3	1348.8
15°	1344.3	1342.8	1341.4	1340.0	1338.6	1335.4	1330.4	1325.4	1320.4	1315.4	1315.2
17.5°	1312.4	1310.2	1308.1	1305.8	1303.6	1299.4	1293.2	1286.9	1280.6	1274.3	1273.1
20°	1287.6	1285.2	1282.9	1280.5	1278.1	1273.1	1265.5	1257.9	1250.3	1242.7	1241.5
22.5°	1260.2	1257.8	1255.5	1253.1	1250.7	1245.5	1237.5	1229.5	1221.5	1213.5	1211.2
25°	1219.2	1215.6	1212.0	1208.5	1204.9	1198.7	1189.9	1181.1	1172.4	1163.6	1160.5
27.5°	1172.1	1167.8	1163.4	1159.1	1154.8	1148.0	1138.5	1129.1	1119.7	1110.2	1106.0
30°	1137.9	1133.4	1128.9	1124.3	1119.8	1112.5	1102.6	1092.6	1082.6	1072.6	1067.1
32.5°	1104.5	1099.2	1093.9	1088.7	1083.4	1075.7	1065.5	1055.3	1045.1	1035.0	1029.0
35°	1050.2	1044.5	1038.8	1033.1	1027.4	1019.1	1008.4	997.8	987.1	976.4	969.5
37.5°	996.9	990.0	983.0	976.1	969.2	960.2	949.1	938.1	927.1	916.1	907.8
40°	959.3	952.1	945.0	937.9	930.7	921.5	910.1	898.7	887.2	875.8	866.8
42.5°	919.9	912.6	905.3	897.9	890.7	881.1	869.3	857.5	845.7	833.9	825.3
45°	859.8	852.9	846.1	839.2	832.3	822.3	809.2	796.1	783.1	770.0	760.5
47.5°	797.6	790.3	783.0	775.8	768.5	758.3	745.1	731.9	718.7	705.6	695.8
50°	758.2	750.4	742.5	734.7	726.8	716.1	702.6	689.0	675.5	661.9	652.0
52.5°	715.4	707.4	699.3	691.3	683.3	672.9	660.1	647.3	634.5	621.8	611.0
55°	652.4	644.8	637.2	629.5	621.9	611.5	598.2	584.9	571.6	558.3	547.6
57.5°	588.6	580.5	572.4	564.2	556.1	545.7	532.8	520.0	507.2	494.3	483.9
60°	547.6	539.2	530.9	522.6	514.3	503.7	490.8	478.0	465.2	452.3	441.9
62.5°	503.9	496.0	488.1	480.1	472.1	461.7	448.7	435.6	422.6	409.6	399.9
65°	441.6	433.6	425.5	417.4	409.3	399.0	386.4	373.8	361.2	348.6	339.1
67.5°	379.9	371.8	363.7	355.6	347.5	337.5	325.3	313.3	301.3	289.1	280.5
70°	337.9	329.9	321.8	313.7	305.6	295.6	283.8	271.9	260.0	248.1	240.7
72.5°	296.9	289.0	281.1	273.2	265.3	255.8	244.7	233.5	222.4	211.4	204.5
75°	235.3	228.1	221.0	213.9	206.8	198.2	188.2	178.2	168.3	158.3	153.0
77.5°	174.1	168.4	162.7	157.0	151.3	144.4	136.5	128.5	120.5	112.5	108.8
80°	139.0	133.3	127.6	121.9	116.2	110.0	103.4	96.7	90.1	83.4	81.3
82.5°	104.8	99.7	94.5	89.4	84.3	79.5	74.9	70.3	65.8	61.2	60.2
85°	58.8	54.5	50.2	45.9	41.7	39.0	37.8	36.6	35.4	34.2	34.0
87.5°	19.8	18.5	17.3	16.2	15.1	14.5	14.4	14.4	14.3	14.3	14.3
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°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1411.2	1413.1	1415.0	1415.8	1415.6	1415.5	1415.2	1415.1
5°	1402.5	1404.9	1407.2	1408.2	1407.7	1407.2	1406.8	1406.3
7.5°	1385.1	1386.7	1388.4	1388.9	1388.4	1387.9	1387.3	1386.8
10°	1370.3	1371.0	1371.7	1371.7	1371.0	1370.3	1369.6	1368.9
12.5°	1349.4	1349.9	1350.4	1350.1	1349.0	1348.0	1346.9	1345.8
15°	1314.9	1314.7	1314.5	1313.3	1311.1	1309.0	1306.9	1304.7
17.5°	1271.9	1270.7	1269.6	1268.1	1266.3	1264.6	1262.8	1261.1
20°	1240.3	1239.1	1237.9	1236.3	1234.1	1232.0	1229.9	1227.7
22.5°	1208.9	1206.6	1204.3	1202.2	1200.5	1198.7	1196.9	1195.2
25°	1157.4	1154.3	1151.2	1148.3	1145.7	1143.1	1140.5	1137.9
27.5°	1101.6	1097.3	1093.0	1089.6	1087.0	1084.5	1082.0	1079.5
30°	1061.7	1056.2	1050.8	1046.9	1044.8	1042.7	1040.5	1038.4
32.5°	1022.9	1016.8	1010.8	1006.5	1003.8	1001.1	998.3	995.6
35°	962.6	955.7	948.8	943.7	940.4	937.1	933.7	930.4
37.5°	899.5	891.3	883.0	877.3	874.0	870.8	867.5	864.3
40°	857.8	848.7	839.7	833.8	830.9	828.1	825.2	822.4
42.5°	816.7	807.9	799.3	792.9	788.7	784.6	780.4	776.2
45°	751.0	741.5	732.0	725.4	721.8	718.3	714.7	711.1
47.5°	686.0	676.2	666.5	659.6	655.6	651.6	647.8	643.8
50°	642.0	632.0	622.0	615.3	611.7	608.2	604.6	601.0
52.5°	600.3	589.5	578.8	571.6	568.1	564.5	560.9	557.4
55°	536.9	526.2	515.5	508.2	504.4	500.6	496.8	493.0
57.5°	473.4	463.0	452.5	445.5	442.2	438.8	435.4	432.1
60°	431.4	421.0	410.5	403.5	400.0	396.4	392.8	389.3
62.5°	390.2	380.5	370.8	364.2	360.6	357.0	353.5	349.9
65°	329.6	320.1	310.6	304.0	300.5	296.9	293.3	289.8
67.5°	271.8	263.1	254.4	248.6	245.7	242.9	240.0	237.2
70°	233.4	226.0	218.6	213.5	210.6	207.8	204.9	202.1
72.5°	197.7	190.9	184.1	179.7	177.8	175.9	174.0	172.1
75°	147.8	142.6	137.4	133.9	132.2	130.6	128.9	127.2
77.5°	105.2	101.6	97.8	95.4	94.2	92.9	91.7	90.5
80°	79.1	77.0	74.9	73.5	73.0	72.6	72.1	71.6
82.5°	59.2	58.1	57.2	56.6	56.2	55.9	55.7	55.4
85°	33.7	33.5	33.3	33.0	32.8	32.6	32.3	32.1
87.5°	14.5	14.6	14.7	14.7	14.5	14.3	14.3	14.0
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: P333591-927

CATALOG NUMBER: S125RDIP-S1090D590U927-4F0-1E-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)