

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: P333702-930

Luminaire Tested: **S125RDIW-S1090D470U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333702-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S1090D470U930-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4971.6 lumens
Efficiency: N/A
Efficacy: 107.6 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

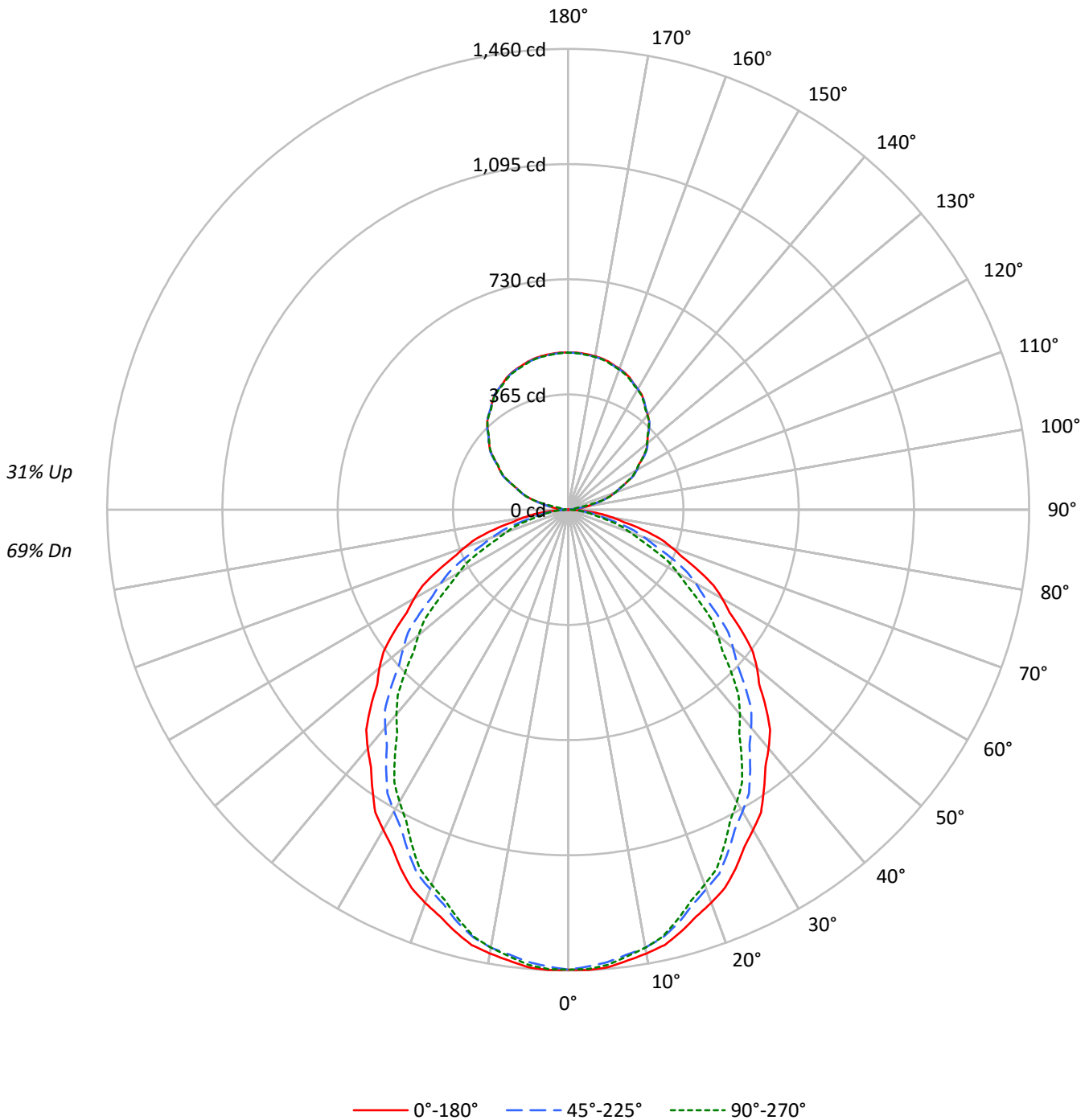
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	83	83	83	74	74	74	69
1	102	98	94	91	97	93	89	86	83	80	78	74	72	70	66	64	63	59
2	94	86	80	75	88	82	76	71	73	69	65	65	62	59	58	56	54	50
3	86	76	68	63	81	72	65	60	65	60	55	58	54	50	52	49	46	43
4	78	67	59	53	74	64	57	51	58	52	47	52	47	43	47	43	40	37
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	42	38	35	32
6	67	54	46	40	63	52	44	39	47	41	36	42	37	33	38	34	31	28
7	62	49	41	35	58	47	40	34	43	37	32	39	34	30	35	31	28	25
8	57	45	37	32	54	43	36	31	39	33	29	36	30	27	32	28	25	23
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	30	26	22	20
10	50	38	31	26	48	36	29	25	33	27	23	30	25	22	28	23	20	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9412	9412	9412
5°	9433	9326	9383
10°	9362	9239	9239
15°	9250	9052	8978
20°	9108	8790	8685
25°	8941	8533	8345
30°	8733	8232	7970
35°	8521	7923	7550
40°	8323	7599	7136
45°	8082	7238	6685
50°	7840	6845	6215
55°	7560	6469	5713
60°	7279	6013	5174
65°	6946	5483	4557
70°	6567	4823	3928
75°	6041	4065	3266
80°	5322	3195	2741
85°	4483	2608	2445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.0	2.8
10°-20°	382.9	7.7
20°-30°	555.3	11.2
30°-40°	632.9	12.7
40°-50°	616.9	12.4
50°-60°	519.3	10.4
60°-70°	364.0	7.3
70°-80°	187.1	3.8
80°-90°	48.3	1.0
90°-100°	18.1	0.4
100°-110°	111.4	2.2
110°-120°	202.1	4.1
120°-130°	259.4	5.2
130°-140°	279.0	5.6
140°-150°	261.9	5.3
150°-160°	211.8	4.3
160°-170°	137.0	2.8
170°-180°	47.3	1.0
0°-30°	1075.3	21.6
0°-40°	1708.1	34.4
0°-60°	2844.3	57.2
0°-90°	3443.7	69.3
90°-120°	331.6	6.7
90°-150°	1131.8	22.8
90°-180°	1528.0	30.7
0°-180°	4971.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1457	1457	1457	1457	1457	
5°	1455	1450	1438	1449	1447	138
15°	1384	1376	1354	1352	1343	390
25°	1255	1237	1198	1183	1171	577
35°	1081	1053	1005	974	958	676
45°	885	851	792	750	732	682
55°	671	635	574	527	507	600
65°	454	416	359	316	298	450
75°	242	208	163	140	131	256
85°	60	42	35	34	33	68
90°	0	3	6	8	9	4
95°	21	19	6	8	8	27
105°	108	110	110	110	110	115
115°	204	205	206	204	202	202
125°	290	292	292	291	290	259
135°	361	363	363	362	360	278
145°	419	419	419	420	418	262
155°	461	459	460	460	458	212
165°	486	484	485	487	484	137
175°	498	496	496	498	495	47
180°	498	498	498	498	498	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3
2.5°	1459.9	1459.3	1458.7	1458.1	1457.5	1456.3	1454.3	1452.4	1450.4	1448.5	1450.4
5°	1455.1	1454.1	1453.1	1452.1	1451.2	1449.3	1446.6	1443.9	1441.2	1438.5	1441.0
7.5°	1440.7	1439.8	1438.8	1437.9	1437.0	1434.9	1431.7	1428.5	1425.2	1422.0	1423.8
10°	1427.5	1426.8	1426.0	1425.3	1424.6	1422.5	1419.1	1415.7	1412.3	1408.8	1409.6
12.5°	1412.5	1411.6	1410.7	1409.7	1408.8	1406.1	1401.5	1396.9	1392.3	1387.6	1388.2
15°	1383.5	1382.0	1380.5	1379.1	1377.6	1374.4	1369.2	1364.1	1358.9	1353.8	1353.6
17.5°	1350.7	1348.4	1346.2	1343.9	1341.7	1337.3	1330.9	1324.5	1317.9	1311.5	1310.3
20°	1325.2	1322.7	1320.3	1317.8	1315.4	1310.3	1302.4	1294.6	1286.8	1279.0	1277.7
22.5°	1297.0	1294.5	1292.1	1289.6	1287.2	1281.9	1273.7	1265.4	1257.2	1249.0	1246.6
25°	1254.7	1251.1	1247.4	1243.7	1240.1	1233.7	1224.7	1215.6	1206.6	1197.5	1194.3
27.5°	1206.3	1201.8	1197.3	1192.9	1188.5	1181.5	1171.7	1162.0	1152.3	1142.6	1138.2
30°	1171.1	1166.4	1161.8	1157.2	1152.5	1145.0	1134.7	1124.5	1114.2	1103.9	1098.3
32.5°	1136.7	1131.3	1125.8	1120.5	1115.0	1107.1	1096.6	1086.1	1075.6	1065.2	1059.0
35°	1080.8	1075.0	1069.1	1063.2	1057.4	1048.9	1037.9	1026.9	1015.9	1004.9	997.8
37.5°	1026.0	1018.9	1011.7	1004.6	997.4	988.2	976.8	965.5	954.1	942.8	934.3
40°	987.2	979.9	972.6	965.2	957.9	948.4	936.6	924.9	913.1	901.4	892.1
42.5°	946.7	939.2	931.7	924.1	916.6	906.8	894.6	882.6	870.4	858.3	849.4
45°	884.9	877.8	870.7	863.6	856.6	846.3	832.8	819.4	805.9	792.5	782.7
47.5°	820.8	813.3	805.8	798.4	790.9	780.4	766.9	753.3	739.7	726.2	716.1
50°	780.3	772.3	764.2	756.1	748.0	737.0	723.1	709.1	695.2	681.3	671.0
52.5°	736.3	728.1	719.7	711.5	703.3	692.5	679.4	666.2	653.1	639.9	628.8
55°	671.4	663.6	655.7	647.9	640.1	629.3	615.6	601.9	588.2	574.5	563.5
57.5°	605.8	597.5	589.1	580.7	572.3	561.6	548.4	535.2	522.0	508.7	498.0
60°	563.5	555.0	546.4	537.9	529.3	518.4	505.2	492.0	478.7	465.5	454.8
62.5°	518.6	510.5	502.3	494.1	485.9	475.2	461.8	448.3	435.0	421.5	411.6
65°	454.5	446.2	437.9	429.6	421.3	410.7	397.7	384.7	371.8	358.8	349.0
67.5°	390.9	382.6	374.3	366.0	357.7	347.3	334.8	322.5	310.1	297.6	288.7
70°	347.8	339.5	331.2	322.9	314.5	304.3	292.0	279.8	267.6	255.4	247.8
72.5°	305.6	297.4	289.3	281.2	273.0	263.3	251.8	240.4	228.9	217.5	210.5
75°	242.1	234.8	227.5	220.1	212.8	204.0	193.7	183.4	173.2	162.9	157.5
77.5°	179.2	173.3	167.5	161.6	155.7	148.6	140.5	132.2	124.0	115.8	112.0
80°	143.1	137.2	131.3	125.5	119.6	113.2	106.4	99.5	92.7	85.9	83.6
82.5°	107.9	102.6	97.3	92.0	86.7	81.8	77.0	72.3	67.7	62.9	62.0
85°	60.5	56.1	51.7	47.3	42.9	40.1	38.9	37.7	36.4	35.2	35.0
87.5°	20.3	19.1	17.9	16.6	15.4	14.7	14.6	14.5	14.4	14.3	14.4
90°	0.4	1.1	1.7	2.4	3.0	3.6	4.2	4.7	5.3	5.9	6.3
92.5°	5.7	5.2	4.7	4.3	3.8	3.8	4.4	4.9	5.4	5.9	6.3
95°	21.0	20.8	20.5	20.3	20.1	18.3	15.2	12.1	9.0	5.9	6.3
97.5°	43.9	44.4	44.8	45.2	45.7	42.8	36.6	30.5	24.3	18.2	15.8
100°	61.6	61.9	62.1	62.4	62.6	62.9	63.2	63.5	63.8	64.2	51.9
102.5°	79.6	79.9	80.2	80.6	80.9	81.1	81.3	81.4	81.7	81.9	79.6
105°	108.4	108.8	109.1	109.4	109.7	109.9	109.9	109.9	109.9	109.9	109.9
107.5°	138.4	138.4	138.4	138.4	138.4	138.4	138.6	138.8	138.9	139.1	139.2
110°	157.8	157.8	157.8	157.8	157.8	157.9	158.1	158.2	158.4	158.6	158.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	176.2	176.3	176.5	176.8	176.9	177.1	177.2	177.3	177.4	177.5	177.2
115°	203.6	204.0	204.4	204.8	205.2	205.5	205.5	205.6	205.7	205.8	205.5
117.5°	232.0	232.0	232.0	232.0	232.0	232.1	232.4	232.7	233.0	233.3	232.9
120°	249.7	249.6	249.6	249.5	249.4	249.5	249.7	250.0	250.2	250.5	250.3
122.5°	265.4	265.6	266.0	266.3	266.6	266.8	266.9	267.0	267.2	267.3	267.1
125°	289.5	290.1	290.7	291.2	291.8	292.1	292.1	292.1	292.1	292.1	291.8
127.5°	312.6	313.1	313.5	313.9	314.3	314.5	314.4	314.4	314.3	314.2	314.1
130°	326.8	327.2	327.6	328.0	328.4	328.6	328.7	328.8	328.9	329.0	328.7
132.5°	341.0	341.4	341.9	342.3	342.8	343.0	342.8	342.7	342.4	342.3	342.3
135°	361.1	361.6	362.1	362.6	363.1	363.2	363.1	362.9	362.7	362.6	362.4
137.5°	379.6	380.0	380.4	380.9	381.3	381.5	381.3	381.2	381.0	380.8	380.9
140°	391.7	391.8	392.0	392.2	392.3	392.4	392.3	392.2	392.2	392.1	392.2
142.5°	402.6	402.8	402.8	402.9	403.0	403.1	403.2	403.3	403.5	403.6	403.6
145°	418.7	418.8	419.0	419.1	419.3	419.4	419.4	419.4	419.4	419.4	419.5
147.5°	432.7	432.6	432.6	432.5	432.5	432.5	432.7	432.8	432.8	432.9	433.0
150°	441.5	441.3	441.2	441.0	440.8	440.8	441.0	441.2	441.3	441.5	441.6
152.5°	450.0	449.7	449.3	449.0	448.6	448.5	448.7	448.8	449.0	449.1	449.3
155°	461.1	460.6	460.1	459.6	459.1	458.9	459.1	459.3	459.4	459.6	459.8
157.5°	469.5	469.2	469.0	468.6	468.3	468.2	468.2	468.2	468.2	468.3	468.6
160°	475.4	474.9	474.4	473.9	473.4	473.3	473.4	473.4	473.5	473.6	473.9
162.5°	480.1	479.6	479.2	478.7	478.2	478.0	478.1	478.2	478.3	478.3	478.7
165°	486.5	486.0	485.5	485.0	484.5	484.3	484.4	484.5	484.5	484.6	485.1
167.5°	491.2	490.7	490.2	489.7	489.2	488.9	489.0	489.1	489.2	489.3	489.9
170°	493.9	493.3	492.7	492.1	491.5	491.3	491.4	491.5	491.5	491.6	492.3
172.5°	495.6	495.0	494.5	493.9	493.3	493.2	493.3	493.4	493.6	493.7	494.3
175°	497.6	497.1	496.6	496.1	495.6	495.4	495.5	495.5	495.6	495.7	496.4
177.5°	498.5	498.1	497.7	497.3	496.8	496.7	496.8	496.8	496.9	497.0	497.4
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3	1457.3
2.5°	1452.4	1454.3	1456.3	1457.1	1456.9	1456.8	1456.5	1456.4
5°	1443.4	1445.9	1448.3	1449.3	1448.8	1448.3	1447.8	1447.3
7.5°	1425.5	1427.2	1428.9	1429.5	1428.9	1428.4	1427.8	1427.3
10°	1410.3	1411.0	1411.8	1411.8	1411.0	1410.3	1409.6	1408.8
12.5°	1388.8	1389.3	1389.8	1389.5	1388.4	1387.3	1386.2	1385.0
15°	1353.3	1353.1	1352.8	1351.6	1349.4	1347.2	1345.0	1342.8
17.5°	1309.0	1307.8	1306.6	1305.1	1303.3	1301.5	1299.7	1297.9
20°	1276.5	1275.3	1274.1	1272.4	1270.2	1268.0	1265.8	1263.6
22.5°	1244.2	1241.8	1239.4	1237.3	1235.5	1233.7	1231.8	1230.0
25°	1191.2	1188.0	1184.8	1181.9	1179.2	1176.5	1173.8	1171.1
27.5°	1133.8	1129.4	1124.9	1121.4	1118.8	1116.1	1113.5	1111.0
30°	1092.7	1087.0	1081.4	1077.5	1075.3	1073.1	1070.9	1068.7
32.5°	1052.8	1046.5	1040.3	1035.8	1033.1	1030.3	1027.4	1024.7
35°	990.7	983.6	976.5	971.3	967.8	964.4	961.0	957.6
37.5°	925.8	917.3	908.7	902.9	899.5	896.2	892.8	889.5
40°	882.8	873.5	864.2	858.1	855.2	852.2	849.3	846.4
42.5°	840.5	831.5	822.6	816.0	811.7	807.5	803.2	798.8
45°	772.9	763.1	753.3	746.6	742.9	739.2	735.6	731.9
47.5°	706.0	695.9	685.9	678.8	674.7	670.7	666.7	662.6
50°	660.7	650.4	640.2	633.2	629.6	625.9	622.2	618.6
52.5°	617.8	606.7	595.7	588.3	584.7	581.0	577.3	573.6
55°	552.5	541.5	530.5	523.0	519.1	515.2	511.3	507.4
57.5°	487.2	476.5	465.7	458.5	455.1	451.6	448.1	444.7
60°	444.0	433.3	422.5	415.3	411.6	408.0	404.3	400.6
62.5°	401.6	391.6	381.6	374.8	371.1	367.5	363.8	360.1
65°	339.2	329.5	319.7	312.9	309.2	305.6	301.9	298.2
67.5°	279.7	270.8	261.8	255.8	252.9	250.0	247.0	244.1
70°	240.2	232.6	225.0	219.7	216.8	213.9	210.9	208.0
72.5°	203.5	196.5	189.5	185.0	183.0	181.1	179.1	177.2
75°	152.1	146.8	141.4	137.8	136.1	134.4	132.6	130.9
77.5°	108.3	104.5	100.7	98.2	96.9	95.6	94.4	93.1
80°	81.4	79.2	77.0	75.7	75.2	74.7	74.2	73.7
82.5°	60.9	59.8	58.9	58.2	57.9	57.6	57.3	57.0
85°	34.7	34.5	34.2	34.0	33.8	33.5	33.3	33.0
87.5°	14.5	14.6	14.7	14.7	14.5	14.4	14.3	14.1
90°	6.7	7.1	7.5	7.9	8.2	8.4	8.6	8.9
92.5°	6.7	7.1	7.5	7.8	7.9	8.1	8.2	8.2
95°	6.7	7.1	7.5	7.7	7.7	7.7	7.7	7.7
97.5°	13.5	11.3	8.9	7.7	7.7	7.7	7.7	7.7
100°	39.8	27.6	15.3	9.0	8.7	8.4	8.1	7.7
102.5°	77.3	74.9	72.6	68.7	63.1	57.6	51.9	46.4
105°	109.9	109.9	109.9	109.9	109.8	109.7	109.7	109.6
107.5°	139.2	139.2	139.2	139.1	138.8	138.6	138.4	138.1
110°	158.1	157.8	157.6	157.5	157.6	157.7	157.8	157.8



TEST NUMBER: P333702-930

CATALOG NUMBER: S125RDIW-S1090D470U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	176.8	176.5	176.3	176.0	175.9	175.8	175.7	175.5
115°	205.1	204.8	204.5	204.1	203.6	203.1	202.6	202.1
117.5°	232.4	232.0	231.6	231.3	231.1	230.9	230.6	230.5
120°	250.1	250.0	249.8	249.5	249.1	248.7	248.3	247.9
122.5°	266.9	266.8	266.6	266.3	265.8	265.3	264.9	264.4
125°	291.5	291.1	290.8	290.5	290.2	290.0	289.8	289.5
127.5°	313.9	313.7	313.6	313.2	312.5	311.9	311.3	310.7
130°	328.5	328.2	328.0	327.7	327.3	326.9	326.4	326.0
132.5°	342.2	342.1	342.1	341.9	341.4	341.0	340.6	340.2
135°	362.2	362.1	361.9	361.6	361.1	360.6	360.1	359.6
137.5°	380.9	381.0	381.0	380.8	380.3	379.9	379.5	379.1
140°	392.4	392.6	392.7	392.6	392.1	391.6	391.1	390.6
142.5°	403.7	403.7	403.7	403.5	403.0	402.5	402.0	401.5
145°	419.6	419.6	419.7	419.5	419.0	418.5	418.0	417.5
147.5°	433.2	433.3	433.3	433.1	432.5	431.9	431.3	430.7
150°	441.8	442.0	442.1	441.9	441.2	440.6	439.9	439.3
152.5°	449.5	449.6	449.8	449.6	449.0	448.4	447.8	447.3
155°	460.1	460.3	460.6	460.3	459.7	459.0	458.4	457.7
157.5°	468.8	469.0	469.3	469.1	468.5	467.8	467.2	466.5
160°	474.3	474.6	474.9	474.7	474.1	473.4	472.8	472.1
162.5°	479.2	479.7	480.1	480.0	479.3	478.6	477.8	477.1
165°	485.7	486.2	486.7	486.6	485.9	485.2	484.5	483.9
167.5°	490.5	491.1	491.6	491.6	490.8	490.1	489.3	488.6
170°	492.9	493.7	494.3	494.2	493.5	492.8	492.0	491.3
172.5°	494.9	495.5	496.1	496.0	495.3	494.6	493.8	493.1
175°	497.0	497.7	498.3	498.3	497.6	496.8	496.1	495.4
177.5°	497.9	498.3	498.8	498.8	498.2	497.7	497.2	496.7
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6

(END OF REPORT)