

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: P333702-927

Luminaire Tested: **S125RDIW-S1090D470U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333702-927
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-S1090D470U927-4F0-1E-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: 4830.6 lumens
Efficiency: N/A
Efficacy: 104.6 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

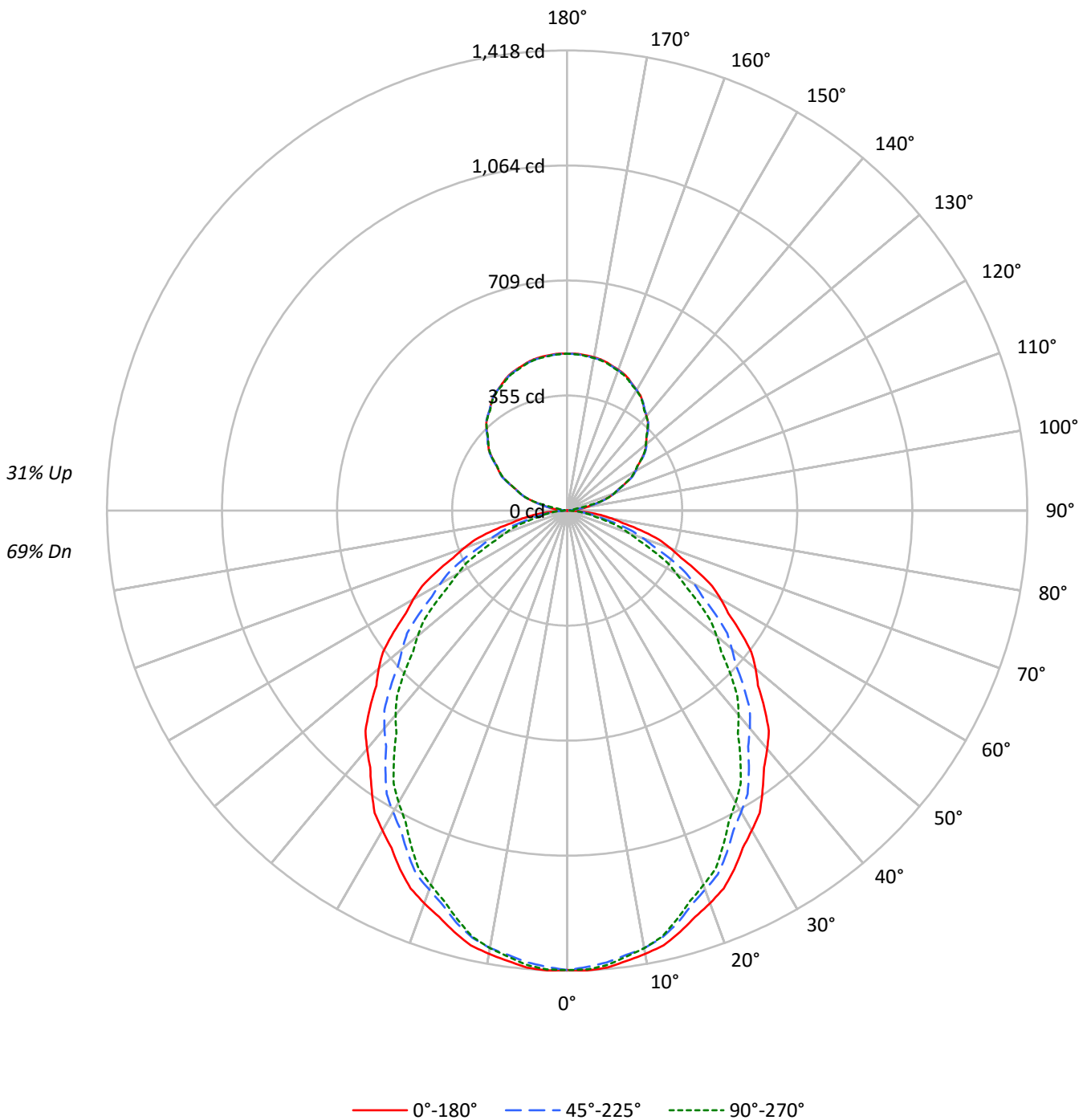
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	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	2.8
10°-20°	372.1	7.7
20°-30°	539.6	11.2
30°-40°	614.9	12.7
40°-50°	599.4	12.4
50°-60°	504.6	10.4
60°-70°	353.7	7.3
70°-80°	181.8	3.8
80°-90°	46.9	1.0
90°-100°	17.6	0.4
100°-110°	108.3	2.2
110°-120°	196.4	4.1
120°-130°	252.0	5.2
130°-140°	271.1	5.6
140°-150°	254.4	5.3
150°-160°	205.8	4.3
160°-170°	133.1	2.8
170°-180°	45.9	1.0
0°-30°	1044.8	21.6
0°-40°	1659.7	34.4
0°-60°	2763.6	57.2
0°-90°	3346.0	69.3
90°-120°	322.2	6.7
90°-150°	1099.7	22.8
90°-180°	1485.0	30.7
0°-180°	4830.6	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	3	6	8	9	4
95°	20	19	6	7	8	26
105°	105	107	107	107	106	112
115°	198	200	200	198	196	196
125°	281	284	284	282	281	251
135°	351	353	352	351	349	270
145°	407	407	408	408	406	254
155°	448	446	447	447	445	206
165°	473	471	471	473	470	133
175°	484	481	482	484	481	46
180°	484	484	484	484	484	



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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°	19.7	18.5	17.3	16.2	15.0	14.3	14.2	14.1	14.0	13.9	14.0
90°	0.4	1.0	1.7	2.3	2.9	3.5	4.0	4.6	5.1	5.7	6.1
92.5°	5.5	5.1	4.6	4.2	3.7	3.7	4.3	4.8	5.2	5.7	6.1
95°	20.4	20.2	20.0	19.7	19.5	17.8	14.8	11.8	8.8	5.7	6.1
97.5°	42.6	43.1	43.5	44.0	44.4	41.6	35.6	29.6	23.6	17.7	15.4
100°	59.8	60.1	60.4	60.6	60.8	61.1	61.4	61.7	62.0	62.3	50.5
102.5°	77.3	77.6	78.0	78.3	78.6	78.8	79.0	79.1	79.4	79.5	77.3
105°	105.4	105.7	106.0	106.3	106.6	106.8	106.8	106.8	106.8	106.8	106.8
107.5°	134.4	134.4	134.4	134.4	134.4	134.5	134.7	134.8	135.0	135.1	135.2
110°	153.4	153.4	153.4	153.4	153.4	153.4	153.6	153.8	153.9	154.1	153.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	171.2	171.3	171.5	171.7	171.9	172.1	172.1	172.3	172.4	172.5	172.1
115°	197.8	198.2	198.6	199.0	199.4	199.6	199.7	199.8	199.9	199.9	199.6
117.5°	225.5	225.4	225.4	225.4	225.4	225.5	225.8	226.1	226.4	226.7	226.3
120°	242.6	242.6	242.5	242.4	242.3	242.4	242.6	242.9	243.1	243.4	243.2
122.5°	257.9	258.1	258.4	258.7	259.0	259.2	259.4	259.4	259.6	259.7	259.5
125°	281.3	281.9	282.4	283.0	283.5	283.8	283.8	283.8	283.8	283.8	283.5
127.5°	303.7	304.2	304.6	305.0	305.4	305.5	305.5	305.5	305.4	305.3	305.1
130°	317.5	317.9	318.3	318.7	319.1	319.3	319.4	319.5	319.6	319.6	319.4
132.5°	331.3	331.8	332.2	332.6	333.1	333.3	333.1	333.0	332.7	332.6	332.6
135°	350.9	351.3	351.8	352.3	352.8	352.9	352.8	352.6	352.4	352.3	352.1
137.5°	368.8	369.2	369.6	370.1	370.5	370.7	370.5	370.3	370.2	370.0	370.1
140°	380.6	380.7	380.9	381.0	381.2	381.3	381.2	381.1	381.0	381.0	381.1
142.5°	391.2	391.3	391.4	391.5	391.6	391.7	391.8	391.9	392.1	392.1	392.1
145°	406.8	406.9	407.1	407.3	407.4	407.5	407.5	407.5	407.5	407.5	407.6
147.5°	420.4	420.3	420.3	420.3	420.3	420.3	420.4	420.5	420.6	420.6	420.7
150°	429.0	428.8	428.6	428.5	428.3	428.3	428.5	428.6	428.8	429.0	429.1
152.5°	437.3	437.0	436.6	436.3	435.9	435.8	435.9	436.1	436.3	436.4	436.6
155°	448.0	447.5	447.0	446.6	446.1	445.9	446.1	446.2	446.4	446.6	446.8
157.5°	456.2	455.9	455.7	455.3	455.0	455.0	455.0	455.0	455.0	455.0	455.3
160°	461.9	461.4	461.0	460.5	460.0	459.9	459.9	460.0	460.1	460.2	460.5
162.5°	466.5	466.0	465.6	465.1	464.6	464.5	464.5	464.6	464.7	464.8	465.2
165°	472.7	472.2	471.7	471.3	470.8	470.6	470.6	470.7	470.8	470.9	471.3
167.5°	477.3	476.8	476.3	475.8	475.3	475.1	475.2	475.2	475.3	475.4	476.0
170°	479.9	479.3	478.7	478.2	477.6	477.4	477.4	477.5	477.6	477.7	478.3
172.5°	481.6	481.0	480.5	479.9	479.3	479.2	479.3	479.4	479.6	479.7	480.3
175°	483.5	483.0	482.5	482.0	481.6	481.3	481.4	481.5	481.6	481.6	482.3
177.5°	484.3	483.9	483.5	483.2	482.8	482.6	482.7	482.8	482.8	482.9	483.3
180°	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5



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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°	14.1	14.2	14.3	14.3	14.1	14.0	13.9	13.7
90°	6.5	6.9	7.3	7.7	7.9	8.2	8.4	8.6
92.5°	6.5	6.9	7.3	7.6	7.7	7.8	7.9	8.0
95°	6.5	6.9	7.3	7.5	7.5	7.5	7.5	7.5
97.5°	13.2	10.9	8.6	7.5	7.5	7.5	7.5	7.5
100°	38.7	26.8	14.9	8.8	8.5	8.2	7.8	7.5
102.5°	75.1	72.8	70.6	66.8	61.3	55.9	50.5	45.1
105°	106.8	106.8	106.8	106.8	106.7	106.6	106.5	106.5
107.5°	135.2	135.2	135.2	135.1	134.9	134.7	134.4	134.2
110°	153.6	153.4	153.1	153.0	153.1	153.2	153.3	153.4



TEST NUMBER: P333702-927

CATALOG NUMBER: S125RDIW-S1090D470U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	171.8	171.5	171.3	171.0	171.0	170.8	170.7	170.6
115°	199.3	199.0	198.7	198.3	197.8	197.3	196.9	196.4
117.5°	225.9	225.5	225.1	224.7	224.5	224.3	224.1	223.9
120°	243.0	242.9	242.7	242.4	242.0	241.6	241.2	240.8
122.5°	259.4	259.2	259.0	258.7	258.3	257.8	257.4	256.9
125°	283.2	282.9	282.6	282.3	282.0	281.8	281.5	281.3
127.5°	305.0	304.8	304.7	304.3	303.6	303.1	302.5	301.9
130°	319.2	318.9	318.7	318.4	318.0	317.6	317.2	316.8
132.5°	332.5	332.4	332.4	332.2	331.8	331.4	331.0	330.6
135°	352.0	351.8	351.6	351.3	350.9	350.4	349.9	349.4
137.5°	370.1	370.2	370.2	370.0	369.6	369.2	368.8	368.4
140°	381.3	381.4	381.6	381.4	381.0	380.5	380.0	379.5
142.5°	392.2	392.2	392.3	392.1	391.6	391.1	390.6	390.1
145°	407.7	407.7	407.8	407.6	407.1	406.6	406.2	405.7
147.5°	420.9	421.0	421.0	420.8	420.3	419.7	419.1	418.5
150°	429.3	429.4	429.6	429.4	428.7	428.1	427.5	426.8
152.5°	436.7	436.9	437.0	436.9	436.3	435.7	435.1	434.6
155°	447.0	447.3	447.5	447.3	446.6	446.0	445.4	444.7
157.5°	455.5	455.7	456.0	455.8	455.2	454.6	453.9	453.3
160°	460.8	461.1	461.4	461.3	460.7	460.0	459.4	458.8
162.5°	465.6	466.1	466.5	466.4	465.7	465.0	464.3	463.6
165°	471.9	472.4	472.9	472.8	472.1	471.4	470.8	470.2
167.5°	476.6	477.1	477.7	477.7	476.9	476.2	475.5	474.8
170°	479.0	479.7	480.3	480.2	479.5	478.8	478.1	477.4
172.5°	480.9	481.4	482.0	482.0	481.3	480.5	479.8	479.1
175°	482.9	483.5	484.2	484.2	483.5	482.8	482.0	481.3
177.5°	483.8	484.2	484.7	484.7	484.1	483.6	483.1	482.6
180°	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5

(END OF REPORT)