

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: P333438-830

Luminaire Tested: **S125DIW-S1090D770U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333438-830
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: S125DIW-S1090D770U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6914.9 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

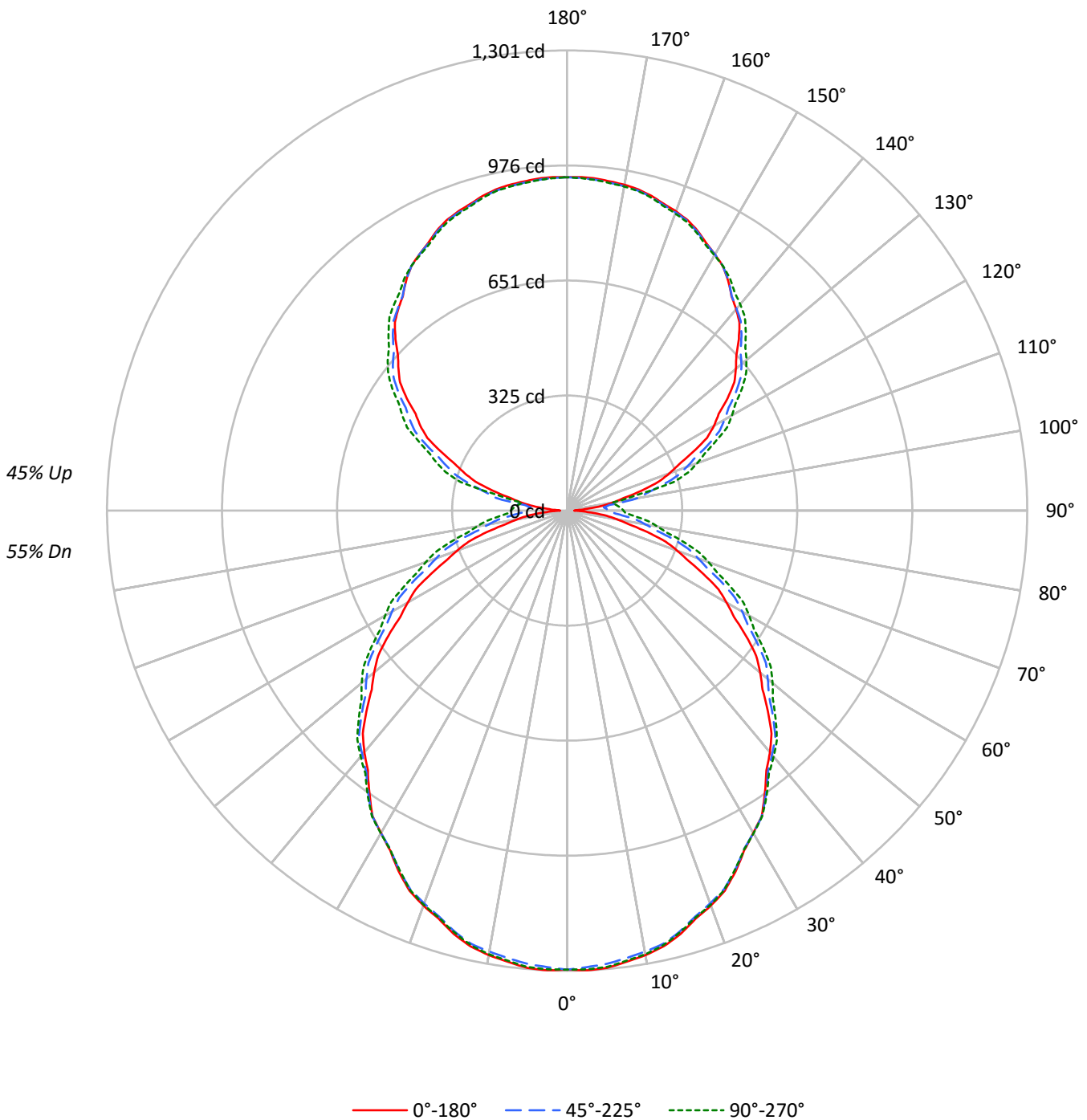
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333438-830

CATALOG NUMBER: S125DIW-S1090D770U830-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333438-830

CATALOG NUMBER: S125DIW-S1090D770U830-4F0-1E-UDD-D

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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	93	89	85	91	87	83	80	74	71	69	63	61	59	52	51	49	44
2	89	81	74	69	82	75	70	65	64	60	56	55	51	49	45	43	41	36
3	81	71	63	57	75	66	59	54	57	51	47	48	44	41	40	37	35	31
4	74	63	54	48	68	58	51	45	50	44	40	43	38	35	36	32	30	26
5	68	56	47	41	63	52	44	39	45	39	34	38	34	30	32	28	26	22
6	62	50	42	36	58	47	39	34	40	34	30	34	30	26	29	25	22	20
7	58	45	37	31	53	42	35	29	37	31	26	31	27	23	26	23	20	17
8	54	41	33	27	50	38	31	26	33	27	23	29	24	21	24	21	18	15
9	50	37	30	24	46	35	28	23	31	25	21	26	22	18	22	19	16	14
10	47	34	27	22	43	32	25	21	28	23	19	24	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



TEST NUMBER: P333438-830

CATALOG NUMBER: S125DIW-S1090D770U830-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	1.8
10°-20°	348.4	5.0
20°-30°	518.1	7.5
30°-40°	613.7	8.9
40°-50°	634.5	9.2
50°-60°	584.5	8.5
60°-70°	472.5	6.8
70°-80°	316.4	4.6
80°-90°	166.0	2.4
90°-100°	126.3	1.8
100°-110°	278.9	4.0
110°-120°	428.2	6.2
120°-130°	517.0	7.5
130°-140°	539.5	7.8
140°-150°	498.1	7.2
150°-160°	401.1	5.8
160°-170°	259.4	3.8
170°-180°	89.5	1.3
0°-30°	989.2	14.3
0°-40°	1602.9	23.2
0°-60°	2821.9	40.8
0°-90°	3776.9	54.6
90°-120°	833.4	12.1
90°-150°	2388.1	34.5
90°-180°	3138.0	45.4
0°-180°	6914.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	21	67	116	147	159	15
95°	56	87	104	134	144	64
105°	217	241	278	303	312	230
115°	393	407	439	458	463	390
125°	553	558	582	599	604	494
135°	686	689	697	711	714	529
145°	794	794	794	801	802	496
155°	873	869	870	872	867	402
165°	921	917	918	921	916	260
175°	942	938	939	944	938	90
180°	942	942	942	942	942	



TEST NUMBER: P333438-830

CATALOG NUMBER: S125DIW-S1090D770U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	39.9	49.1	58.4	67.8	77.0	86.6	96.4	106.2	116.1	125.9	132.6
90°	21.0	31.4	41.7	51.9	62.2	72.7	83.4	94.1	104.8	115.6	122.8
92.5°	29.1	36.6	44.1	51.6	59.1	68.2	79.1	89.8	100.7	111.4	118.5
95°	56.4	63.2	70.1	77.0	83.9	89.2	92.9	96.6	100.4	104.1	111.0
97.5°	98.1	105.6	113.0	120.5	127.9	130.4	128.1	125.6	123.3	120.9	122.4
100°	130.6	137.0	143.5	149.9	156.3	164.3	174.0	183.6	193.3	202.9	185.8
102.5°	163.7	169.8	175.9	181.9	188.0	195.7	204.8	214.1	223.2	232.4	233.8
105°	216.8	222.0	227.1	232.2	237.3	244.2	252.7	261.2	269.7	278.1	283.8
107.5°	271.9	275.8	279.7	283.5	287.4	293.5	302.0	310.4	318.9	327.3	332.9
110°	307.8	311.2	314.6	318.0	321.4	327.2	335.5	343.7	351.9	360.1	365.0



TEST NUMBER: P333438-830

CATALOG NUMBER: S125DIW-S1090D770U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	342.4	345.5	348.6	351.8	354.8	360.3	368.2	376.1	383.9	391.8	396.3
115°	393.1	395.9	398.7	401.4	404.2	409.3	416.8	424.3	431.8	439.3	443.7
117.5°	445.6	447.0	448.2	449.5	450.7	455.2	462.7	470.2	477.8	485.3	489.3
120°	479.2	479.8	480.6	481.3	481.9	485.8	492.8	499.7	506.7	513.7	518.1
122.5°	507.7	508.8	509.7	510.8	511.7	515.5	522.0	528.5	534.9	541.4	545.7
125°	553.4	554.1	555.0	555.7	556.6	559.8	565.4	571.1	576.7	582.4	586.3
127.5°	595.8	596.3	596.7	597.3	597.8	600.3	604.8	609.4	613.9	618.4	622.3
130°	622.5	623.1	623.6	624.1	624.5	626.9	630.9	635.1	639.2	643.3	646.8
132.5°	648.4	649.2	650.1	650.9	651.8	653.6	656.3	658.9	661.7	664.4	668.3
135°	686.3	686.9	687.6	688.2	688.9	690.0	691.7	693.3	695.0	696.7	700.0
137.5°	721.0	721.6	722.3	722.8	723.4	724.1	724.7	725.4	726.0	726.8	730.2
140°	743.0	743.3	743.6	743.9	744.2	744.4	744.5	744.7	744.8	744.9	748.4
142.5°	763.6	763.6	763.6	763.6	763.5	763.6	763.8	764.1	764.4	764.7	767.4
145°	793.9	794.0	794.0	794.0	794.1	794.1	794.1	794.1	794.1	794.1	795.6
147.5°	819.3	819.2	819.1	819.1	819.0	819.1	819.3	819.4	819.5	819.7	820.4
150°	835.9	835.7	835.4	835.0	834.7	834.7	835.0	835.4	835.7	835.9	836.3
152.5°	852.2	851.5	850.8	850.2	849.4	849.2	849.6	849.9	850.2	850.5	850.8
155°	873.0	872.0	871.1	870.2	869.3	868.9	869.3	869.6	869.9	870.2	870.6
157.5°	889.0	888.5	888.0	887.4	886.8	886.6	886.6	886.6	886.6	886.6	887.2
160°	900.2	899.3	898.3	897.4	896.5	896.1	896.3	896.5	896.5	896.7	897.4
162.5°	909.2	908.2	907.3	906.3	905.4	905.0	905.2	905.4	905.5	905.7	906.5
165°	921.1	920.2	919.4	918.4	917.5	917.1	917.2	917.4	917.6	917.7	918.6
167.5°	930.1	929.2	928.2	927.3	926.2	925.9	926.0	926.1	926.3	926.5	927.6
170°	935.2	934.1	932.9	931.9	930.8	930.3	930.5	930.7	930.8	930.9	932.2
172.5°	938.5	937.5	936.3	935.2	934.2	933.8	934.1	934.3	934.6	934.9	935.9
175°	942.2	941.2	940.3	939.3	938.4	938.0	938.2	938.3	938.5	938.7	939.9
177.5°	943.8	943.0	942.4	941.6	940.8	940.5	940.7	940.8	940.8	941.0	941.9
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2



TEST NUMBER: P333438-830

CATALOG NUMBER: S125DIW-S1090D770U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	139.2	145.9	152.5	156.9	159.0	161.1	163.2	165.2
90°	130.1	137.3	144.6	149.5	151.9	154.4	156.8	159.3
92.5°	125.5	132.6	139.7	144.3	146.5	148.6	150.9	153.1
95°	118.0	125.1	132.1	136.6	138.6	140.5	142.5	144.5
97.5°	124.0	125.5	127.1	128.8	130.8	132.7	134.6	136.6
100°	168.6	151.4	134.2	126.1	127.2	128.3	129.4	130.4
102.5°	235.1	236.4	237.7	233.9	225.2	216.3	207.5	198.6
105°	289.5	295.1	300.8	304.4	306.3	308.1	309.9	311.8
107.5°	338.6	344.2	349.9	353.3	354.6	355.9	357.1	358.4
110°	369.9	374.8	379.8	383.2	385.4	387.6	389.6	391.8



TEST NUMBER: P333438-830

CATALOG NUMBER: S125DIW-S1090D770U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	400.9	405.5	410.0	413.2	414.9	416.7	418.5	420.2
115°	448.3	452.7	457.2	459.8	460.6	461.4	462.1	462.9
117.5°	493.3	497.3	501.3	504.1	505.6	507.1	508.6	510.2
120°	522.6	527.2	531.6	534.3	535.3	536.2	537.1	538.0
122.5°	550.0	554.2	558.6	561.0	561.8	562.6	563.5	564.2
125°	590.2	594.1	598.0	600.4	601.3	602.3	603.2	604.3
127.5°	626.1	630.0	633.9	636.0	636.5	637.0	637.4	637.9
130°	650.4	653.8	657.3	659.4	660.0	660.6	661.3	661.9
132.5°	672.1	676.0	679.9	682.0	682.4	682.8	683.2	683.6
135°	703.4	706.8	710.1	712.1	712.6	713.0	713.5	714.0
137.5°	733.6	737.0	740.4	742.3	742.5	742.8	743.2	743.5
140°	751.8	755.2	758.7	760.4	760.6	760.8	761.0	761.2
142.5°	770.2	772.9	775.5	777.0	777.2	777.4	777.6	777.8
145°	797.2	798.8	800.3	801.3	801.4	801.6	801.8	802.0
147.5°	821.0	821.7	822.4	822.4	821.7	821.1	820.5	819.9
150°	836.6	836.9	837.3	836.9	835.9	835.0	834.1	833.0
152.5°	851.1	851.4	851.8	851.4	850.3	849.2	848.2	847.2
155°	871.1	871.6	872.0	871.7	870.4	869.2	868.0	866.7
157.5°	887.7	888.2	888.6	888.3	887.0	885.8	884.6	883.4
160°	898.0	898.6	899.2	898.9	897.7	896.5	895.2	893.9
162.5°	907.4	908.2	909.2	908.9	907.6	906.2	904.8	903.4
165°	919.5	920.5	921.4	921.2	920.0	918.8	917.6	916.2
167.5°	928.7	929.8	930.9	930.9	929.4	928.0	926.6	925.2
170°	933.4	934.7	935.9	935.9	934.4	933.0	931.6	930.3
172.5°	937.1	938.2	939.3	939.1	937.8	936.4	935.0	933.6
175°	941.1	942.4	943.6	943.5	942.2	940.8	939.3	937.9
177.5°	942.7	943.6	944.5	944.4	943.4	942.4	941.4	940.5
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2

(END OF REPORT)