

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: P333439-840

Luminaire Tested: **S125DIW-S1090D770U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333439-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S1090D770U840-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6997.2 lumens
Efficiency: N/A
Efficacy: 130.5 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

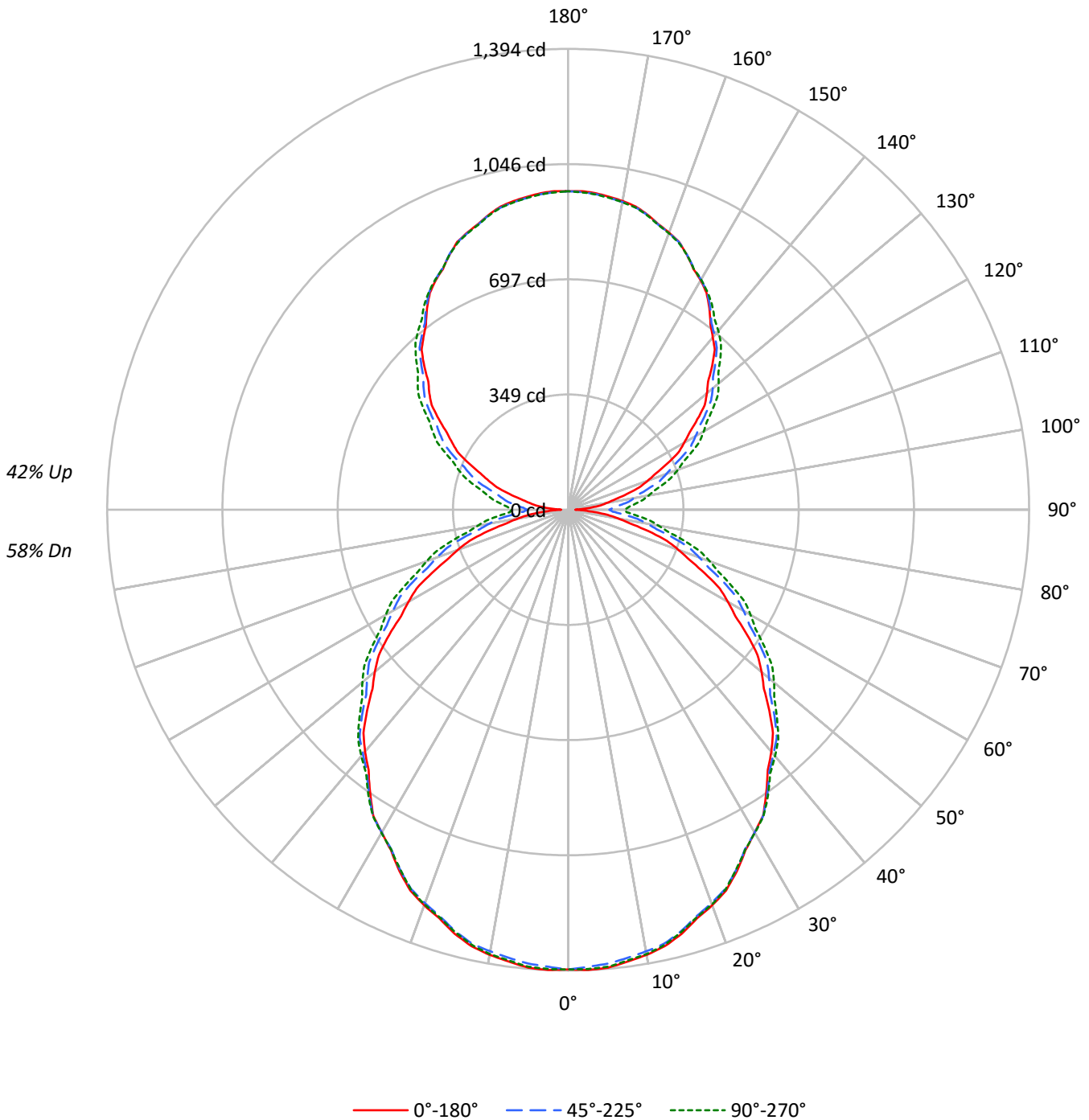
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333439-840

CATALOG NUMBER: S125DIW-S1090D770U840-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333439-840

CATALOG NUMBER: S125DIW-S1090D770U840-4F0-1E-UDD-D1

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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	99	94	90	86	92	88	84	80	76	73	70	65	63	61	55	53	52	47
2	90	82	75	69	83	76	70	65	66	61	58	56	53	50	48	45	43	39
3	81	71	64	57	75	67	60	54	58	52	48	50	45	42	42	39	36	32
4	74	63	55	48	69	59	52	46	51	45	41	44	39	36	37	34	31	27
5	68	56	48	41	63	53	45	39	46	40	35	39	35	31	33	30	27	24
6	63	50	42	36	58	47	40	34	41	35	30	36	31	27	30	27	24	21
7	58	45	37	31	54	43	35	30	37	31	27	32	27	24	28	24	21	18
8	54	41	33	28	50	39	31	26	34	28	24	30	25	21	25	22	19	16
9	50	38	30	25	47	35	28	24	31	25	21	27	22	19	23	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	25	20	17	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8981	8981	8981
5°	8999	8815	8843
10°	8935	8658	8644
15°	8829	8469	8392
20°	8685	8236	8140
25°	8515	7987	7828
30°	8308	7712	7547
35°	8115	7461	7288
40°	7918	7195	7027
45°	7696	6968	6796
50°	7485	6722	6592
55°	7230	6489	6352
60°	6950	6223	6107
65°	6660	5946	5832
70°	6332	5566	5549
75°	5809	5201	5201
80°	5122	4760	4822
85°	4483	4460	4702



TEST NUMBER: P333439-840

CATALOG NUMBER: S125DIW-S1090D770U840-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	1.9
10°-20°	373.3	5.3
20°-30°	555.1	7.9
30°-40°	657.5	9.4
40°-50°	679.8	9.7
50°-60°	626.3	9.0
60°-70°	506.2	7.2
70°-80°	339.0	4.8
80°-90°	177.9	2.5
90°-100°	163.2	2.3
100°-110°	263.3	3.8
110°-120°	371.5	5.3
120°-130°	452.4	6.5
130°-140°	488.0	7.0
140°-150°	468.9	6.7
150°-160°	391.8	5.6
160°-170°	260.4	3.7
170°-180°	91.1	1.3
0°-30°	1059.9	15.1
0°-40°	1717.4	24.5
0°-60°	3023.5	43.2
0°-90°	4046.7	57.8
90°-120°	797.9	11.4
90°-150°	2207.2	31.5
90°-180°	2950.0	42.2
0°-180°	6997.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1391	1387	1378	1389	1388	132
15°	1328	1329	1320	1327	1322	374
25°	1206	1210	1202	1207	1201	555
35°	1044	1053	1050	1054	1054	653
45°	860	875	882	891	893	664
55°	661	683	705	719	725	591
65°	455	487	519	539	545	452
75°	251	287	330	356	364	266
85°	75	120	168	197	208	80
90°	22	72	124	158	171	17
95°	66	104	157	191	204	66
105°	183	210	254	285	298	196
115°	331	345	381	404	412	328
125°	477	482	508	528	534	427
135°	616	620	629	646	651	475
145°	744	746	748	755	758	465
155°	850	850	851	853	850	391
165°	924	923	924	926	922	261
175°	961	958	958	962	957	91
180°	963	963	963	963	963	



TEST NUMBER: P333439-840

CATALOG NUMBER: S125DIW-S1090D770U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1393.8	1393.3	1392.8	1392.4	1391.9	1390.8	1389.1	1387.4	1385.7	1384.0	1385.7
5°	1390.6	1390.0	1389.4	1388.8	1388.2	1386.7	1384.6	1382.5	1380.4	1378.3	1380.7
7.5°	1378.3	1378.1	1377.8	1377.6	1377.4	1376.1	1373.9	1371.7	1369.6	1367.4	1369.5
10°	1367.4	1367.4	1367.4	1367.4	1367.4	1366.1	1363.7	1361.3	1358.9	1356.5	1358.6
12.5°	1352.1	1352.3	1352.6	1352.8	1353.1	1352.2	1350.3	1348.4	1346.5	1344.4	1346.2
15°	1327.9	1328.2	1328.5	1328.8	1329.1	1328.2	1326.1	1323.9	1321.8	1319.7	1321.5
17.5°	1296.2	1296.8	1297.4	1298.0	1298.6	1297.9	1295.8	1293.6	1291.5	1289.4	1290.8
20°	1273.3	1273.9	1274.6	1275.2	1275.8	1275.0	1272.8	1270.7	1268.6	1266.5	1267.4
22.5°	1247.1	1248.2	1249.3	1250.4	1251.5	1250.8	1248.5	1246.2	1243.7	1241.4	1242.5
25°	1206.5	1207.4	1208.3	1209.2	1210.1	1209.7	1207.9	1206.1	1204.3	1202.4	1203.7
27.5°	1161.2	1162.6	1163.9	1165.3	1166.6	1166.2	1164.2	1162.1	1160.0	1158.0	1158.8
30°	1127.4	1129.2	1131.0	1132.9	1134.7	1134.7	1132.9	1131.0	1129.2	1127.4	1128.0
32.5°	1096.9	1098.4	1100.0	1101.7	1103.2	1103.3	1102.0	1100.7	1099.3	1098.0	1098.6
35°	1044.3	1046.4	1048.5	1050.7	1052.8	1053.4	1052.5	1051.6	1050.7	1049.8	1050.7
37.5°	991.7	993.6	995.5	997.4	999.4	1000.3	1000.0	999.7	999.4	999.1	1000.3
40°	955.6	958.1	960.5	962.9	965.3	966.4	966.1	965.8	965.5	965.2	966.4
42.5°	916.4	919.6	922.7	925.8	929.0	930.9	931.6	932.2	932.9	933.6	935.0
45°	860.2	863.5	866.9	870.2	873.5	876.0	877.5	879.0	880.5	882.0	884.1
47.5°	802.7	805.8	808.9	811.9	815.1	817.9	820.5	823.1	825.8	828.3	831.4
50°	763.5	766.8	770.1	773.5	776.8	780.1	783.5	786.8	790.1	793.5	796.8
52.5°	722.0	726.1	730.1	734.2	738.2	742.3	746.4	750.4	754.5	758.5	762.1
55°	661.2	666.0	670.9	675.7	680.5	685.4	690.2	695.1	699.9	704.8	708.1
57.5°	599.1	604.8	610.7	616.5	622.3	628.0	633.6	639.1	644.7	650.3	654.1
60°	557.5	563.6	569.7	575.7	581.8	587.8	593.9	600.0	606.0	612.1	616.6
62.5°	517.3	523.3	529.4	535.4	541.5	547.8	554.3	560.9	567.4	573.9	579.0
65°	455.3	462.3	469.3	476.3	483.2	490.3	497.6	504.8	512.1	519.4	523.9
67.5°	397.0	403.7	410.4	417.2	423.8	430.9	438.4	445.8	453.1	460.5	466.1
70°	354.5	361.4	368.4	375.4	382.3	389.7	397.6	405.5	413.3	421.2	427.0
72.5°	313.1	320.2	327.4	334.7	341.8	349.7	358.4	367.0	375.6	384.2	390.4
75°	250.9	258.7	266.6	274.5	282.4	291.1	300.8	310.5	320.2	329.9	336.0
77.5°	191.2	200.3	209.3	218.4	227.5	236.7	246.0	255.4	264.7	274.0	280.6
80°	154.0	163.1	172.2	181.3	190.4	200.1	210.4	220.7	231.0	241.3	247.9
82.5°	120.3	129.8	139.4	149.0	158.5	168.5	179.2	189.7	200.3	210.8	217.2
85°	74.9	84.9	94.9	104.9	114.9	125.2	135.8	146.4	157.0	167.6	174.3
87.5°	42.7	52.6	62.6	72.6	82.5	92.8	103.3	113.8	124.4	134.9	142.1
90°	22.5	33.6	44.6	55.6	66.7	78.0	89.4	100.9	112.3	123.8	131.6
92.5°	37.8	47.7	57.6	67.5	77.4	88.3	100.3	112.3	124.2	136.2	144.0
95°	66.4	74.6	82.9	91.1	99.3	109.4	121.4	133.3	145.3	157.2	165.1
97.5°	97.0	104.3	111.5	118.8	125.9	135.6	147.9	160.2	172.4	184.6	192.1
100°	120.0	126.3	132.7	139.1	145.4	154.5	166.3	178.2	190.1	202.0	209.8
102.5°	144.6	151.2	157.7	164.3	170.9	179.4	190.0	200.5	211.1	221.6	229.3
105°	183.2	188.8	194.6	200.3	205.9	213.8	223.9	234.0	244.1	254.2	261.3
107.5°	225.9	230.9	235.8	240.8	245.8	253.0	262.5	272.0	281.4	290.9	297.4
110°	255.4	259.9	264.4	268.8	273.3	280.0	289.0	298.0	307.0	316.0	322.2



TEST NUMBER: P333439-840

CATALOG NUMBER: S125DIW-S1090D770U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	286.6	289.9	293.3	296.6	300.0	306.1	315.0	323.9	332.8	341.6	347.3
115°	331.3	334.1	336.9	339.6	342.4	347.9	356.2	364.4	372.5	380.8	386.1
117.5°	376.1	377.8	379.5	381.2	382.8	387.6	395.4	403.1	410.8	418.6	423.9
120°	404.9	406.7	408.4	410.1	411.8	416.3	423.4	430.6	437.7	444.8	450.0
122.5°	434.9	435.8	436.5	437.2	437.9	441.8	449.0	456.2	463.3	470.5	475.2
125°	477.0	477.7	478.4	479.1	479.8	483.2	489.5	495.7	501.9	508.2	512.7
127.5°	520.6	520.9	521.1	521.4	521.7	524.4	529.6	534.7	539.9	545.0	549.4
130°	547.6	548.2	548.7	549.2	549.8	552.3	556.8	561.4	566.0	570.6	574.6
132.5°	573.5	574.8	576.1	577.4	578.8	581.0	584.2	587.3	590.6	593.8	597.8
135°	615.9	616.6	617.3	618.0	618.7	620.3	622.5	624.8	627.1	629.3	633.3
137.5°	655.9	656.6	657.3	658.0	658.7	659.8	661.3	662.6	664.0	665.4	669.1
140°	680.5	681.4	682.3	683.1	683.9	684.7	685.5	686.3	687.1	687.9	691.6
142.5°	706.4	706.8	707.3	707.7	708.2	708.7	709.4	710.1	710.8	711.6	714.6
145°	744.3	744.7	745.0	745.4	745.8	746.2	746.7	747.2	747.7	748.2	749.7
147.5°	778.0	778.4	778.7	779.1	779.5	779.8	780.2	780.6	781.0	781.4	782.3
150°	801.4	801.2	801.0	800.9	800.7	801.0	801.6	802.3	802.9	803.7	803.7
152.5°	820.6	820.8	821.0	821.3	821.5	821.7	822.0	822.3	822.5	822.8	823.2
155°	850.1	850.1	850.1	850.1	850.1	850.2	850.4	850.5	850.7	850.9	851.5
157.5°	876.6	876.2	875.8	875.5	875.0	874.9	875.1	875.3	875.5	875.7	876.3
160°	892.1	891.6	891.1	890.6	890.1	889.9	890.1	890.3	890.4	890.6	891.3
162.5°	905.9	905.5	905.1	904.8	904.4	904.2	904.3	904.3	904.3	904.4	905.2
165°	924.3	924.0	923.7	923.3	923.0	922.9	923.1	923.2	923.4	923.6	924.2
167.5°	940.0	939.3	938.6	938.0	937.3	937.0	937.0	937.0	937.0	937.0	938.0
170°	948.4	947.7	947.0	946.3	945.6	945.3	945.3	945.3	945.3	945.3	946.3
172.5°	954.3	953.6	953.0	952.3	951.7	951.3	951.3	951.3	951.3	951.3	952.3
175°	961.1	960.4	959.8	959.1	958.4	958.1	958.1	958.1	958.1	958.1	959.1
177.5°	964.5	964.0	963.4	962.9	962.4	962.1	961.9	961.8	961.7	961.5	962.3
180°	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3



TEST NUMBER: P333439-840

CATALOG NUMBER: S125DIW-S1090D770U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1387.4	1389.1	1390.8	1391.5	1391.3	1391.0	1390.8	1390.6
5°	1383.1	1385.5	1388.0	1389.1	1388.8	1388.5	1388.2	1387.9
7.5°	1371.6	1373.7	1375.8	1376.7	1376.4	1376.1	1375.8	1375.5
10°	1360.7	1362.8	1364.9	1365.8	1365.5	1365.2	1364.9	1364.6
12.5°	1347.8	1349.4	1351.0	1351.4	1350.7	1349.9	1349.1	1348.3
15°	1323.3	1325.1	1327.0	1327.3	1326.1	1324.8	1323.6	1322.4
17.5°	1292.2	1293.5	1294.9	1295.3	1294.5	1293.8	1293.1	1292.4
20°	1268.3	1269.2	1270.1	1270.6	1270.6	1270.6	1270.6	1270.6
22.5°	1243.7	1244.9	1246.0	1246.2	1245.5	1244.8	1244.1	1243.3
25°	1204.9	1206.1	1207.3	1207.1	1205.6	1204.1	1202.5	1201.0
27.5°	1159.6	1160.5	1161.3	1161.5	1160.9	1160.4	1159.8	1159.3
30°	1128.6	1129.2	1129.8	1130.0	1129.7	1129.4	1129.1	1128.8
32.5°	1099.2	1099.8	1100.4	1100.6	1100.2	1099.9	1099.6	1099.3
35°	1051.6	1052.5	1053.4	1053.8	1053.8	1053.8	1053.8	1053.8
37.5°	1001.5	1002.7	1003.9	1004.4	1004.3	1004.2	1004.0	1003.9
40°	967.7	968.9	970.1	971.0	971.6	972.2	972.8	973.4
42.5°	936.4	938.0	939.4	940.2	940.3	940.4	940.6	940.7
45°	886.3	888.4	890.5	891.7	892.0	892.3	892.6	892.9
47.5°	834.6	837.6	840.7	842.5	843.2	843.9	844.6	845.3
50°	800.1	803.4	806.8	808.9	809.8	810.7	811.6	812.5
52.5°	765.7	769.2	772.8	775.0	775.6	776.3	777.0	777.6
55°	711.4	714.8	718.1	720.4	721.6	722.9	724.1	725.3
57.5°	657.9	661.8	665.6	667.9	668.8	669.7	670.7	671.6
60°	621.2	625.7	630.3	633.0	633.9	634.8	635.7	636.6
62.5°	584.0	589.1	594.1	597.1	598.3	599.5	600.6	601.8
65°	528.5	533.0	537.6	540.5	541.7	542.9	544.1	545.3
67.5°	471.5	477.1	482.6	486.1	487.7	489.3	490.8	492.4
70°	432.7	438.5	444.2	448.1	449.9	451.7	453.5	455.3
72.5°	396.7	402.9	409.1	412.9	414.2	415.6	416.9	418.3
75°	342.0	348.1	354.2	357.9	359.4	360.9	362.4	364.0
77.5°	287.3	294.0	300.6	304.6	305.8	307.0	308.2	309.4
80°	254.6	261.3	267.9	271.9	273.1	274.3	275.5	276.7
82.5°	223.6	230.0	236.4	240.8	243.0	245.1	247.3	249.4
85°	181.0	187.6	194.3	198.8	201.3	203.7	206.1	208.5
87.5°	149.2	156.3	163.5	168.1	170.4	172.6	174.8	177.0
90°	139.4	147.1	155.0	160.2	162.8	165.4	168.0	170.7
92.5°	151.9	159.7	167.5	172.7	175.1	177.6	180.2	182.6
95°	172.9	180.8	188.5	193.7	196.1	198.6	201.1	203.5
97.5°	199.5	207.0	214.5	219.3	221.6	223.9	226.1	228.3
100°	217.6	225.5	233.4	238.4	240.5	242.7	244.9	247.0
102.5°	237.1	244.8	252.6	257.6	259.8	262.2	264.5	266.7
105°	268.2	275.3	282.4	287.2	289.8	292.5	295.1	297.7
107.5°	304.0	310.4	316.9	321.1	323.0	324.8	326.6	328.5
110°	328.5	334.8	341.0	345.1	347.1	349.0	350.9	352.9



TEST NUMBER: P333439-840

CATALOG NUMBER: S125DIW-S1090D770U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	353.0	358.8	364.6	368.4	370.2	372.0	373.9	375.7
115°	391.3	396.7	401.9	405.4	407.1	408.7	410.3	412.0
117.5°	429.2	434.4	439.7	443.1	444.4	445.9	447.3	448.7
120°	455.1	460.3	465.4	468.6	469.7	470.9	472.0	473.2
122.5°	480.0	484.7	489.6	492.6	493.8	495.1	496.4	497.8
125°	517.2	521.7	526.2	529.2	530.5	531.8	533.2	534.5
127.5°	553.7	558.1	562.3	565.2	566.6	568.0	569.5	570.9
130°	578.8	582.8	586.8	589.5	590.7	591.9	593.0	594.2
132.5°	602.0	606.0	610.1	612.6	613.4	614.1	614.9	615.7
135°	637.2	641.2	645.1	647.5	648.3	649.2	650.1	651.0
137.5°	673.0	676.7	680.5	682.6	683.0	683.4	683.7	684.1
140°	695.3	698.9	702.6	704.6	705.0	705.4	705.8	706.1
142.5°	717.6	720.6	723.8	725.5	725.8	726.2	726.6	727.0
145°	751.2	752.8	754.3	755.4	756.1	756.8	757.5	758.2
147.5°	783.3	784.2	785.0	785.2	784.6	784.0	783.4	782.7
150°	803.7	803.7	803.7	803.7	803.7	803.5	803.5	803.5
152.5°	823.6	824.0	824.5	824.4	823.8	823.2	822.7	822.2
155°	852.2	852.8	853.5	853.4	852.6	851.8	850.9	850.1
157.5°	877.0	877.6	878.3	878.1	877.0	875.9	874.7	873.6
160°	891.9	892.6	893.2	893.2	892.3	891.5	890.7	889.9
162.5°	906.1	906.8	907.6	907.6	906.6	905.5	904.6	903.6
165°	924.9	925.6	926.2	926.0	925.1	924.1	923.1	922.1
167.5°	939.0	940.0	940.9	940.9	939.9	938.9	937.9	936.8
170°	947.4	948.4	949.4	949.3	948.1	947.0	945.7	944.6
172.5°	953.3	954.3	955.3	955.3	954.3	953.2	952.2	951.2
175°	960.1	961.1	962.1	962.0	960.8	959.7	958.5	957.4
177.5°	963.1	963.9	964.7	964.6	963.7	962.8	961.9	960.9
180°	963.3	963.3	963.3	963.3	963.3	963.3	963.3	963.3

(END OF REPORT)