

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: P333444-840

Luminaire Tested: **S125DIW-S1090D1050U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333444-840
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-S1090D1050U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8540.8 lumens
Efficiency: N/A
Efficacy: 139.6 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

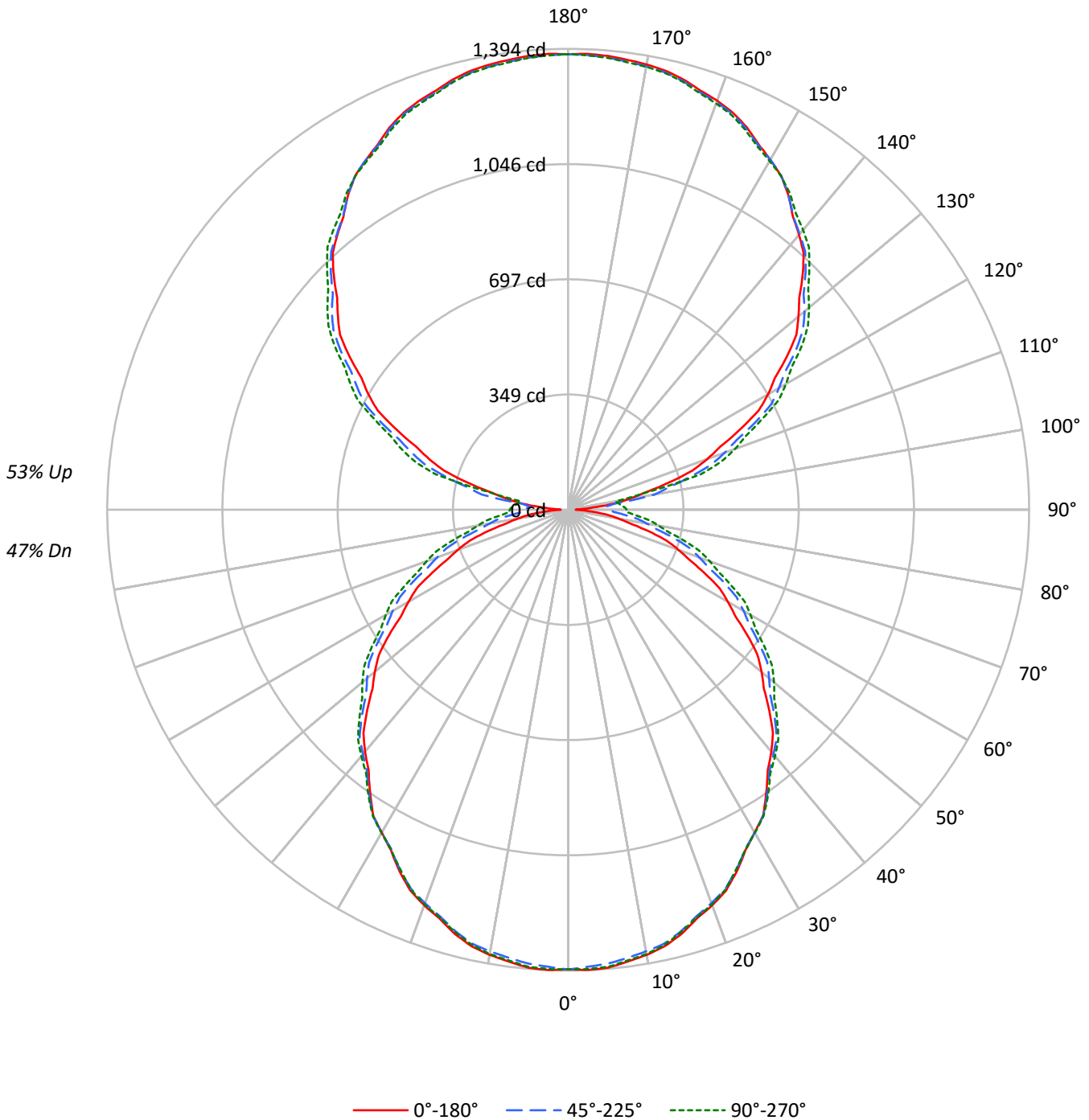
Input Watts (W): 61.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333444-840

CATALOG NUMBER: S125DIW-S1090D1050U840-4F0-1E-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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	47
1	96	92	88	84	88	85	81	78	71	68	66	58	56	55	46	45	44	38
2	88	80	73	68	80	73	68	63	62	57	54	51	48	45	40	38	36	32
3	80	70	62	56	73	64	58	52	54	49	45	44	41	38	36	33	31	26
4	73	62	54	47	67	57	50	44	48	42	38	39	35	32	32	29	26	23
5	67	55	47	40	61	51	43	38	43	37	33	35	31	28	28	25	23	19
6	61	49	41	35	56	45	38	33	38	33	28	32	27	24	26	22	20	17
7	57	44	36	31	52	41	34	29	35	29	25	29	25	21	23	20	18	15
8	53	40	32	27	48	37	30	25	32	26	22	26	22	19	22	18	16	13
9	49	37	29	24	45	34	27	23	29	24	20	24	20	17	20	17	14	12
10	46	34	26	21	42	31	25	20	27	21	18	22	18	15	18	15	13	11

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	1.5
10°-20°	373.3	4.4
20°-30°	555.1	6.5
30°-40°	657.5	7.7
40°-50°	679.8	8.0
50°-60°	626.3	7.3
60°-70°	506.2	5.9
70°-80°	339.0	4.0
80°-90°	178.7	2.1
90°-100°	148.7	1.7
100°-110°	381.3	4.5
110°-120°	608.4	7.1
120°-130°	745.9	8.7
130°-140°	784.6	9.2
140°-150°	727.6	8.5
150°-160°	586.6	6.9
160°-170°	379.4	4.4
170°-180°	130.8	1.5
0°-30°	1059.9	12.4
0°-40°	1717.4	20.1
0°-60°	3023.5	35.4
0°-90°	4047.4	47.4
90°-120°	1138.4	13.3
90°-150°	3396.6	39.8
90°-180°	4493.0	52.6
0°-180°	8540.8	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°	23	75	128	163	177	17
95°	76	107	116	150	160	88
105°	313	339	379	406	415	331
115°	572	588	623	643	646	567
125°	807	814	840	857	862	720
135°	1003	1008	1015	1030	1031	773
145°	1161	1161	1161	1169	1168	725
155°	1277	1271	1273	1275	1268	588
165°	1347	1341	1342	1347	1340	380
175°	1378	1372	1373	1380	1372	131
180°	1378	1378	1378	1378	1378	



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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	52.8	62.8	72.9	83.0	93.3	103.9	114.5	125.1	135.8	143.0
90°	22.8	34.3	45.8	57.4	68.9	80.6	92.5	104.3	116.2	128.2	136.2
92.5°	35.3	43.0	50.8	58.5	66.1	75.9	88.0	99.9	111.8	123.8	131.6
95°	75.9	83.1	90.3	97.6	104.7	109.2	110.9	112.5	114.2	115.8	123.7
97.5°	137.6	145.9	154.2	162.6	170.9	171.5	164.3	157.2	150.1	143.0	142.9
100°	185.5	192.6	199.7	206.7	213.7	222.6	233.2	243.8	254.4	265.0	237.5
102.5°	234.3	241.1	247.8	254.5	261.3	269.6	279.6	289.6	299.6	309.6	309.3
105°	312.6	318.3	324.1	329.8	335.6	343.0	352.0	361.1	370.2	379.3	385.4
107.5°	393.8	398.0	402.1	406.2	410.3	417.0	426.2	435.4	444.5	453.7	459.7
110°	446.7	450.3	453.9	457.6	461.2	467.5	476.5	485.3	494.3	503.2	508.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	497.4	500.8	504.2	507.7	511.2	517.2	525.6	534.1	542.7	551.2	555.8
115°	572.0	575.2	578.5	581.7	585.0	590.7	598.7	606.8	615.0	623.1	627.6
117.5°	649.2	650.6	652.0	653.3	654.6	659.4	667.8	676.1	684.4	692.8	696.7
120°	698.2	698.9	699.6	700.3	700.9	705.2	712.8	720.4	728.1	735.8	740.4
122.5°	740.5	741.7	743.1	744.4	745.6	749.8	756.8	763.9	770.9	778.0	782.4
125°	807.2	808.5	809.8	811.0	812.3	816.1	822.1	828.2	834.2	840.3	844.2
127.5°	869.8	870.6	871.4	872.3	873.1	876.0	880.8	885.7	890.4	895.2	899.3
130°	909.0	909.8	910.7	911.5	912.3	914.9	919.5	923.9	928.4	932.8	936.4
132.5°	947.2	948.4	949.7	950.9	952.2	954.2	956.9	959.7	962.5	965.2	969.4
135°	1002.6	1003.7	1004.7	1005.8	1006.8	1008.2	1009.9	1011.6	1013.2	1014.9	1018.3
137.5°	1053.6	1054.6	1055.5	1056.4	1057.3	1058.1	1058.7	1059.4	1060.1	1060.7	1064.3
140°	1086.0	1086.5	1086.9	1087.4	1087.8	1088.1	1088.2	1088.2	1088.3	1088.4	1092.2
142.5°	1116.3	1116.3	1116.3	1116.4	1116.4	1116.6	1117.0	1117.3	1117.7	1118.1	1121.1
145°	1160.6	1160.7	1160.9	1161.0	1161.2	1161.2	1161.2	1161.2	1161.2	1161.2	1163.1
147.5°	1198.0	1198.0	1197.9	1197.8	1197.7	1197.8	1198.0	1198.3	1198.6	1198.8	1199.6
150°	1222.5	1222.1	1221.6	1221.2	1220.7	1220.7	1221.2	1221.6	1222.1	1222.5	1223.0
152.5°	1246.3	1245.3	1244.3	1243.2	1242.2	1242.0	1242.4	1242.9	1243.3	1243.7	1244.3
155°	1276.7	1275.4	1273.9	1272.6	1271.2	1270.8	1271.2	1271.7	1272.1	1272.6	1273.2
157.5°	1300.2	1299.4	1298.6	1297.8	1296.9	1296.6	1296.6	1296.6	1296.7	1296.7	1297.5
160°	1316.6	1315.1	1313.8	1312.4	1311.1	1310.5	1310.7	1311.0	1311.2	1311.4	1312.3
162.5°	1329.6	1328.3	1326.9	1325.5	1324.1	1323.5	1323.8	1324.0	1324.2	1324.4	1325.8
165°	1347.2	1345.8	1344.4	1343.1	1341.7	1341.1	1341.4	1341.6	1341.8	1342.0	1343.4
167.5°	1360.2	1358.9	1357.5	1356.0	1354.6	1354.0	1354.2	1354.4	1354.7	1354.9	1356.6
170°	1367.6	1366.0	1364.4	1362.8	1361.2	1360.6	1360.8	1361.0	1361.2	1361.5	1363.3
172.5°	1372.5	1370.9	1369.3	1367.8	1366.1	1365.5	1365.9	1366.3	1366.8	1367.2	1368.8
175°	1377.8	1376.4	1375.0	1373.7	1372.3	1371.8	1372.0	1372.2	1372.5	1372.7	1374.5
177.5°	1380.3	1379.2	1378.1	1377.0	1375.9	1375.4	1375.6	1375.8	1375.9	1376.1	1377.5
180°	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8



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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°	150.2	157.3	164.6	169.3	171.6	173.8	176.0	178.3
90°	144.3	152.4	160.6	166.0	168.7	171.6	174.4	177.2
92.5°	139.5	147.3	155.2	160.4	162.8	165.2	167.6	170.2
95°	131.5	139.3	147.0	152.0	154.1	156.2	158.3	160.5
97.5°	142.9	142.8	142.8	143.8	145.8	147.9	150.0	152.1
100°	210.1	182.6	155.1	141.9	142.8	143.7	144.6	145.5
102.5°	309.0	308.8	308.5	301.5	287.9	274.3	260.7	247.1
105°	391.4	397.5	403.5	407.6	409.4	411.3	413.2	415.2
107.5°	465.7	471.8	477.9	481.5	482.7	483.9	485.0	486.3
110°	513.4	518.5	523.5	527.3	529.6	532.0	534.3	536.6



TEST NUMBER: P333444-840

CATALOG NUMBER: S125DIW-S1090D1050U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	560.5	565.1	569.8	573.0	574.8	576.6	578.5	580.3
115°	632.2	636.7	641.3	643.8	644.2	644.7	645.1	645.6
117.5°	700.6	704.7	708.6	711.3	712.8	714.3	715.7	717.2
120°	745.2	749.8	754.6	757.2	757.9	758.6	759.3	759.9
122.5°	786.9	791.3	795.8	798.3	798.8	799.3	799.8	800.3
125°	848.2	852.1	856.1	858.4	859.2	860.1	860.9	861.7
127.5°	903.2	907.3	911.2	913.2	913.3	913.4	913.5	913.5
130°	940.0	943.5	947.1	949.1	949.5	949.8	950.2	950.6
132.5°	973.5	977.5	981.7	983.8	983.9	984.1	984.2	984.3
135°	1021.9	1025.3	1028.9	1030.7	1030.8	1031.0	1031.1	1031.3
137.5°	1067.9	1071.7	1075.3	1077.1	1077.2	1077.2	1077.2	1077.3
140°	1096.0	1099.7	1103.6	1105.4	1105.2	1105.1	1104.9	1104.8
142.5°	1124.0	1126.9	1129.8	1131.3	1131.1	1130.9	1130.8	1130.6
145°	1164.8	1166.5	1168.2	1169.0	1168.9	1168.7	1168.6	1168.4
147.5°	1200.3	1201.1	1201.8	1201.7	1200.6	1199.5	1198.4	1197.4
150°	1223.5	1224.0	1224.4	1223.9	1222.3	1220.8	1219.3	1217.8
152.5°	1244.7	1245.2	1245.6	1245.1	1243.4	1241.9	1240.3	1238.8
155°	1273.9	1274.7	1275.4	1274.8	1272.9	1271.1	1269.3	1267.5
157.5°	1298.2	1298.9	1299.6	1299.1	1297.3	1295.5	1293.6	1291.8
160°	1313.2	1314.1	1315.0	1314.5	1312.8	1311.0	1309.2	1307.4
162.5°	1327.1	1328.3	1329.6	1329.2	1327.2	1325.2	1323.2	1321.2
165°	1344.7	1346.2	1347.5	1347.3	1345.4	1343.6	1341.8	1340.0
167.5°	1358.2	1359.8	1361.5	1361.3	1359.2	1357.2	1355.1	1353.1
170°	1365.1	1367.0	1368.8	1368.6	1366.5	1364.5	1362.5	1360.4
172.5°	1370.5	1372.1	1373.7	1373.5	1371.5	1369.4	1367.4	1365.3
175°	1376.3	1378.2	1380.0	1379.9	1377.8	1375.7	1373.7	1371.7
177.5°	1378.7	1380.0	1381.3	1381.2	1379.7	1378.3	1376.8	1375.3
180°	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8	1377.8

(END OF REPORT)