

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: P333271-840

Luminaire Tested: **S125DIP-S1090D810U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333271-840
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: S125DIP-S1090D810U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7580.8 lumens
Efficiency: N/A
Efficacy: 139.4 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

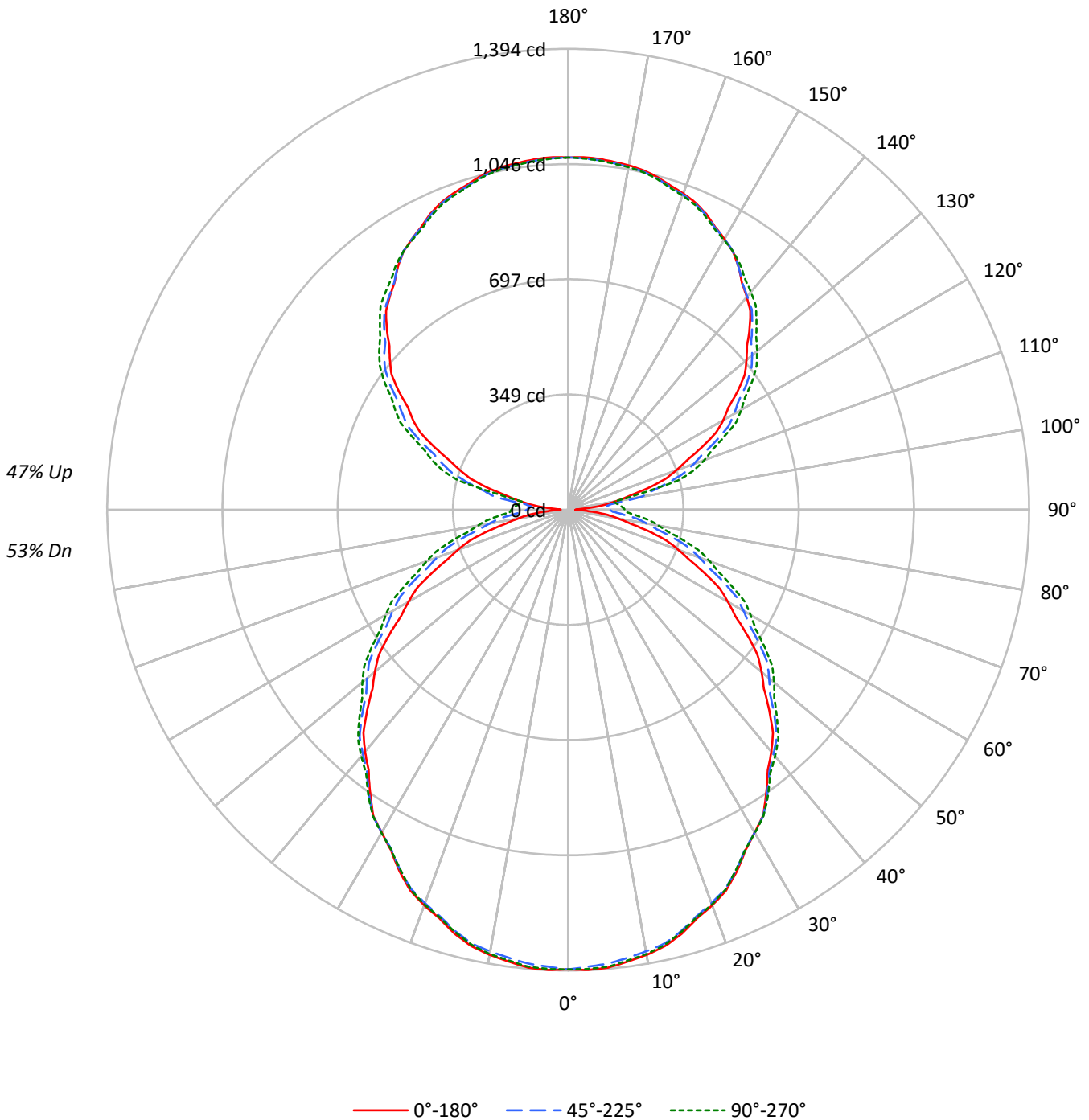
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333271-840

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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	98	93	89	85	90	86	83	79	74	71	68	62	60	58	51	50	48	43
2	89	81	74	69	82	75	69	64	64	60	56	54	51	48	45	42	40	36
3	81	71	63	57	74	66	59	53	56	51	47	47	43	40	39	36	34	30
4	74	62	54	48	68	58	51	45	50	44	40	42	38	34	35	32	29	25
5	68	56	47	41	62	52	44	39	44	39	34	38	33	30	31	28	25	22
6	62	50	41	35	57	46	39	33	40	34	30	34	29	26	28	25	22	19
7	58	45	37	31	53	42	35	29	36	30	26	31	26	23	26	22	20	17
8	53	41	33	27	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	30	24	46	35	28	23	30	25	21	26	21	18	22	18	16	14
10	46	34	27	22	43	32	25	21	28	22	19	24	20	16	20	17	14	12

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	1.7
10°-20°	373.3	4.9
20°-30°	555.1	7.3
30°-40°	657.5	8.7
40°-50°	679.8	9.0
50°-60°	626.3	8.3
60°-70°	506.2	6.7
70°-80°	339.0	4.5
80°-90°	178.0	2.3
90°-100°	137.4	1.8
100°-110°	311.4	4.1
110°-120°	481.5	6.4
120°-130°	583.1	7.7
130°-140°	609.5	8.0
140°-150°	563.2	7.4
150°-160°	453.6	6.0
160°-170°	293.3	3.9
170°-180°	101.2	1.3
0°-30°	1059.9	14.0
0°-40°	1717.4	22.7
0°-60°	3023.5	39.9
0°-90°	4046.8	53.4
90°-120°	930.2	12.3
90°-150°	2685.9	35.4
90°-180°	3534.0	46.6
0°-180°	7580.8	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	73	124	158	172	16
95°	63	95	112	145	156	71
105°	244	270	310	337	346	259
115°	444	459	494	514	519	440
125°	625	631	657	675	680	558
135°	776	780	787	803	806	598
145°	898	898	898	905	906	561
155°	987	983	984	986	980	455
165°	1042	1037	1038	1042	1036	294
175°	1065	1061	1062	1067	1061	101
180°	1065	1065	1065	1065	1065	



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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	52.7	62.6	72.6	82.6	92.8	103.4	113.9	124.5	135.0	142.2
90°	22.6	33.7	44.8	55.9	67.0	78.3	89.9	101.4	112.9	124.4	132.3
92.5°	31.8	39.8	47.8	55.7	63.7	73.5	85.1	96.8	108.5	120.1	127.6
95°	62.7	70.1	77.5	84.8	92.1	97.7	101.3	104.9	108.6	112.2	119.7
97.5°	110.1	118.2	126.1	134.2	142.2	144.6	141.4	138.0	134.8	131.6	133.0
100°	146.9	153.8	160.7	167.5	174.4	183.1	193.5	203.9	214.3	224.7	204.9
102.5°	184.3	190.9	197.4	204.0	210.6	218.7	228.6	238.4	248.3	258.2	259.4
105°	244.5	250.0	255.6	261.2	266.7	274.0	283.1	292.2	301.2	310.3	316.4
107.5°	307.0	311.0	315.2	319.3	323.5	330.0	339.1	348.2	357.3	366.4	372.3
110°	347.6	351.2	354.9	358.5	362.1	368.3	377.2	386.0	394.9	403.6	408.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	386.8	390.1	393.3	396.7	400.0	406.0	414.3	422.8	431.3	439.7	444.5
115°	444.1	447.2	450.1	453.1	456.2	461.6	469.7	477.8	485.8	493.8	498.6
117.5°	503.6	504.9	506.2	507.7	509.0	513.7	521.9	530.0	538.2	546.2	550.5
120°	541.5	542.2	542.9	543.7	544.4	548.6	556.0	563.5	571.0	578.6	583.3
122.5°	573.9	575.0	576.0	577.1	578.2	582.3	589.3	596.2	603.2	610.2	614.7
125°	625.4	626.3	627.2	628.2	629.1	632.6	638.6	644.7	650.8	656.8	661.0
127.5°	673.5	674.1	674.6	675.2	675.8	678.5	683.4	688.2	693.1	697.9	702.1
130°	703.8	704.4	705.0	705.5	706.1	708.6	713.1	717.4	721.9	726.3	730.0
132.5°	733.1	734.0	735.0	735.9	736.9	738.8	741.6	744.6	747.5	750.3	754.5
135°	775.9	776.7	777.4	778.2	778.9	780.1	781.9	783.7	785.5	787.3	790.8
137.5°	815.3	816.0	816.6	817.3	818.0	818.7	819.4	820.1	820.8	821.5	825.2
140°	840.1	840.4	840.8	841.1	841.5	841.7	841.8	842.0	842.1	842.2	846.0
142.5°	863.4	863.4	863.4	863.3	863.3	863.4	863.7	864.0	864.4	864.7	867.6
145°	897.8	897.8	897.9	897.9	898.0	898.0	898.0	898.0	898.0	898.0	899.7
147.5°	926.3	926.3	926.2	926.1	926.1	926.1	926.3	926.6	926.9	927.1	927.8
150°	945.3	945.0	944.6	944.3	943.9	943.9	944.3	944.6	945.0	945.3	945.7
152.5°	963.7	962.9	962.1	961.4	960.6	960.4	960.7	961.1	961.4	961.8	962.1
155°	987.2	986.1	985.1	984.0	983.0	982.6	983.0	983.3	983.7	984.0	984.5
157.5°	1005.3	1004.7	1004.1	1003.5	1002.8	1002.5	1002.6	1002.6	1002.6	1002.7	1003.2
160°	1018.0	1016.9	1015.9	1014.8	1013.8	1013.4	1013.5	1013.7	1013.9	1014.0	1014.7
162.5°	1028.1	1027.0	1026.0	1024.9	1023.9	1023.5	1023.6	1023.8	1024.0	1024.2	1025.1
165°	1041.7	1040.7	1039.6	1038.5	1037.4	1037.0	1037.2	1037.4	1037.5	1037.7	1038.8
167.5°	1051.8	1050.8	1049.7	1048.5	1047.4	1047.0	1047.1	1047.3	1047.5	1047.7	1048.9
170°	1057.5	1056.2	1055.0	1053.8	1052.6	1052.1	1052.2	1052.4	1052.6	1052.8	1054.2
172.5°	1061.3	1060.1	1058.8	1057.6	1056.3	1055.9	1056.2	1056.5	1056.8	1057.1	1058.4
175°	1065.4	1064.3	1063.3	1062.3	1061.2	1060.8	1060.9	1061.1	1061.3	1061.5	1062.9
177.5°	1067.3	1066.4	1065.6	1064.8	1063.9	1063.6	1063.7	1063.8	1064.0	1064.1	1065.1
180°	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4



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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°	149.4	156.4	163.6	168.3	170.6	172.8	175.0	177.2
90°	140.1	147.9	155.8	161.1	163.7	166.3	169.0	171.7
92.5°	135.2	142.9	150.5	155.4	157.8	160.2	162.6	164.9
95°	127.2	134.8	142.3	147.1	149.3	151.4	153.5	155.6
97.5°	134.4	135.8	137.2	139.0	141.0	143.1	145.1	147.1
100°	185.1	165.3	145.5	136.2	137.3	138.5	139.6	140.7
102.5°	260.5	261.8	262.9	258.4	248.3	238.2	228.0	217.9
105°	322.4	328.5	334.6	338.6	340.5	342.4	344.4	346.4
107.5°	378.4	384.5	390.5	394.2	395.5	396.9	398.2	399.6
110°	414.1	419.4	424.5	428.4	430.6	432.9	435.3	437.6



TEST NUMBER: P333271-840

CATALOG NUMBER: S125DIP-S1090D810U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	449.4	454.2	459.1	462.5	464.3	466.3	468.1	470.0
115°	503.3	508.1	512.8	515.6	516.3	517.2	518.0	518.7
117.5°	554.7	559.0	563.2	566.1	567.7	569.3	570.9	572.5
120°	588.1	592.9	597.7	600.6	601.5	602.5	603.4	604.3
122.5°	619.2	623.8	628.3	631.1	631.9	632.7	633.5	634.3
125°	665.1	669.2	673.4	676.0	677.0	677.9	678.9	679.9
127.5°	706.2	710.2	714.4	716.6	717.1	717.5	718.0	718.4
130°	733.7	737.4	741.1	743.4	744.0	744.6	745.2	745.9
132.5°	758.6	762.8	766.9	769.1	769.5	769.9	770.3	770.7
135°	794.5	798.0	801.6	803.7	804.1	804.6	805.0	805.5
137.5°	828.8	832.4	836.1	838.1	838.4	838.7	839.0	839.3
140°	849.6	853.3	857.0	858.9	859.1	859.2	859.4	859.5
142.5°	870.5	873.4	876.4	877.9	878.1	878.2	878.4	878.6
145°	901.3	903.0	904.7	905.6	905.8	905.9	906.2	906.3
147.5°	928.4	929.1	929.8	929.8	929.1	928.4	927.7	927.0
150°	946.0	946.4	946.7	946.3	945.2	944.1	943.1	942.0
152.5°	962.5	962.8	963.2	962.7	961.6	960.4	959.2	958.0
155°	985.1	985.6	986.1	985.7	984.3	982.9	981.5	980.1
157.5°	1003.8	1004.4	1004.9	1004.5	1003.1	1001.7	1000.3	998.9
160°	1015.4	1016.1	1016.8	1016.5	1015.1	1013.7	1012.3	1010.9
162.5°	1026.1	1027.1	1028.0	1027.8	1026.2	1024.7	1023.2	1021.7
165°	1039.9	1040.9	1042.0	1041.8	1040.4	1038.9	1037.5	1036.1
167.5°	1050.3	1051.5	1052.8	1052.6	1051.0	1049.5	1047.8	1046.3
170°	1055.5	1056.9	1058.3	1058.2	1056.7	1055.1	1053.5	1052.0
172.5°	1059.7	1061.0	1062.3	1062.1	1060.5	1058.9	1057.3	1055.7
175°	1064.2	1065.6	1067.0	1066.9	1065.4	1063.8	1062.3	1060.7
177.5°	1066.1	1067.0	1068.0	1068.0	1066.8	1065.7	1064.6	1063.5
180°	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4

(END OF REPORT)