

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: P333263-840

Luminaire Tested: **S125DIP-S1090D590U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333263-840
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: S125DIP-S1090D590U840-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6374.3 lumens
Efficiency: N/A
Efficacy: 130.6 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: Semi-Direct

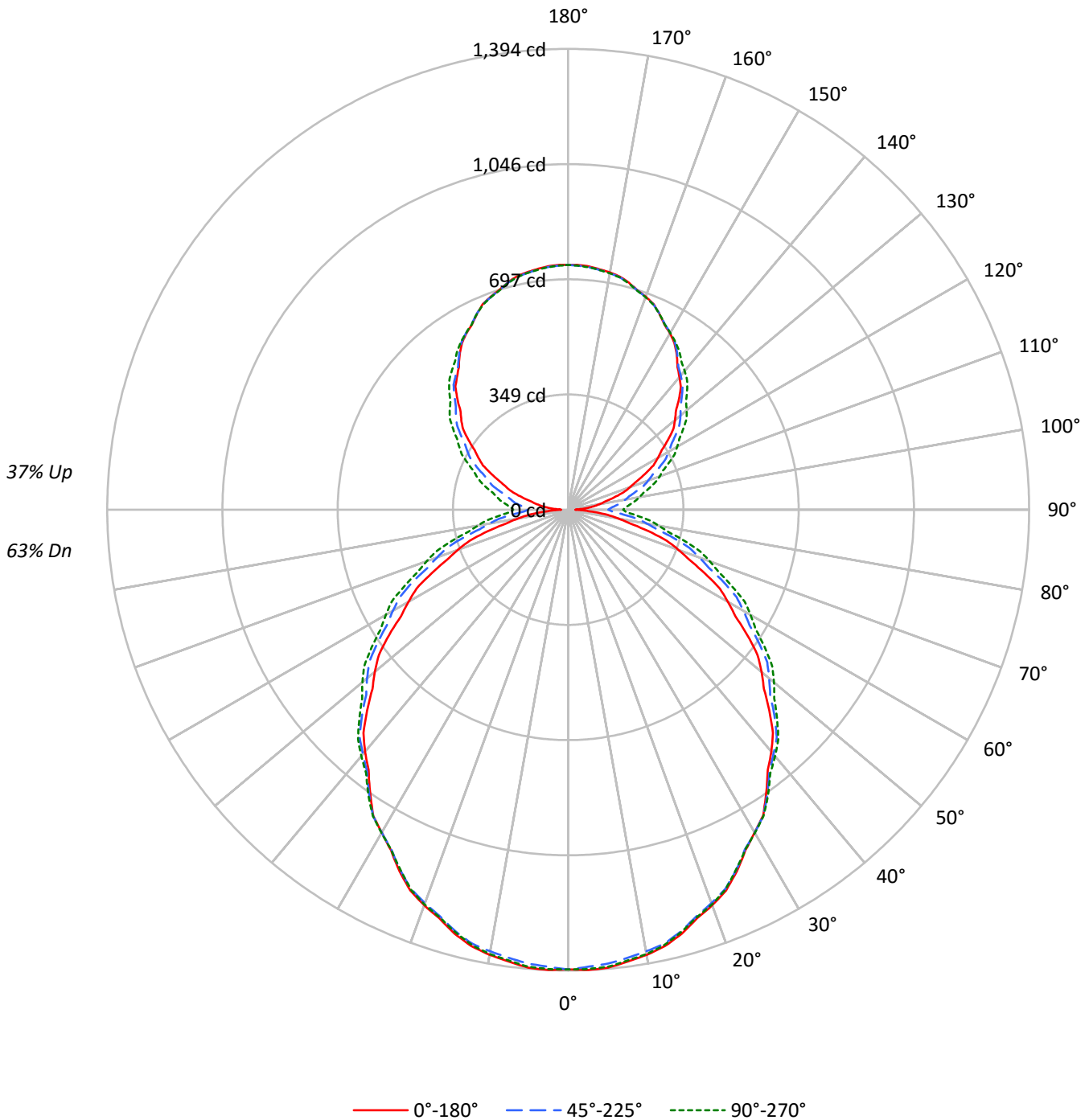
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333263-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P333263-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	73	68	66	64	59	57	56	52
2	91	82	76	70	85	77	72	67	68	63	60	59	56	53	51	49	46	42
3	82	72	64	58	77	68	61	55	60	54	50	52	48	44	45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42	46	42	38	40	37	33	30
5	69	57	48	42	64	54	46	40	47	41	36	42	37	33	36	32	29	26
6	64	51	42	36	59	48	40	35	43	36	32	38	32	28	33	29	25	23
7	59	46	38	32	55	43	36	30	39	32	28	34	29	25	30	26	23	20
8	55	42	34	28	51	40	32	27	35	29	25	31	26	22	27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20	27	22	18	24	19	17	15

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: P333263-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	2.1
10°-20°	373.3	5.9
20°-30°	555.1	8.7
30°-40°	657.5	10.3
40°-50°	679.8	10.7
50°-60°	626.3	9.8
60°-70°	506.2	7.9
70°-80°	339.0	5.3
80°-90°	177.4	2.8
90°-100°	148.2	2.3
100°-110°	219.2	3.4
110°-120°	296.7	4.7
120°-130°	354.1	5.6
130°-140°	377.8	5.9
140°-150°	360.9	5.7
150°-160°	301.1	4.7
160°-170°	200.1	3.1
170°-180°	70.0	1.1
0°-30°	1059.9	16.6
0°-40°	1717.4	26.9
0°-60°	3023.5	47.4
0°-90°	4046.2	63.5
90°-120°	664.1	10.4
90°-150°	1756.9	27.6
90°-180°	2328.0	36.5
0°-180°	6374.3	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	71	121	154	166	17
95°	55	93	144	177	189	54
105°	144	169	213	242	255	153
115°	256	270	305	328	336	254
125°	368	371	398	418	425	329
135°	474	476	486	503	508	365
145°	572	573	575	582	586	357
155°	653	653	654	656	653	301
165°	710	709	710	712	709	200
175°	738	736	736	739	736	70
180°	740	740	740	740	740	



TEST NUMBER: P333263-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-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°	42.6	52.5	62.4	72.3	82.2	92.4	102.9	113.4	123.9	134.3	141.5
90°	22.4	33.1	43.8	54.5	65.2	76.2	87.5	98.7	109.8	121.0	128.7
92.5°	33.5	43.2	52.9	62.6	72.3	83.0	94.6	106.2	118.0	129.6	137.1
95°	55.1	63.3	71.4	79.6	87.7	97.6	109.2	120.7	132.3	143.9	151.5
97.5°	78.3	85.5	92.7	99.9	107.0	116.5	128.3	140.0	151.6	163.3	170.6
100°	95.6	102.0	108.4	114.7	121.1	130.0	141.3	152.7	164.0	175.4	182.9
102.5°	114.4	120.8	127.1	133.5	140.0	148.2	158.5	168.8	179.2	189.5	196.8
105°	143.6	149.2	154.6	160.1	165.6	173.2	183.1	193.0	202.8	212.7	219.5
107.5°	176.1	180.9	185.6	190.4	195.1	202.2	211.5	220.8	230.1	239.4	245.8
110°	198.5	202.8	207.0	211.4	215.6	222.2	231.1	239.9	248.7	257.6	263.8



TEST NUMBER: P333263-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	222.5	225.7	228.9	232.2	235.4	241.5	250.1	258.8	267.6	276.3	282.1
115°	256.5	259.1	261.8	264.4	267.0	272.4	280.5	288.6	296.8	304.9	310.2
117.5°	290.6	292.3	293.9	295.5	297.1	301.7	309.4	317.1	324.8	332.4	337.7
120°	312.8	314.3	315.8	317.4	318.9	323.3	330.3	337.4	344.6	351.6	356.8
122.5°	335.6	336.3	336.9	337.6	338.2	342.0	349.1	356.2	363.2	370.3	375.2
125°	367.8	368.3	368.7	369.2	369.7	373.0	379.2	385.4	391.5	397.8	402.3
127.5°	401.0	401.1	401.3	401.4	401.5	404.1	409.3	414.4	419.5	424.6	429.0
130°	421.7	422.1	422.4	422.7	423.1	425.6	430.0	434.5	439.0	443.5	447.7
132.5°	441.4	442.4	443.4	444.3	445.4	447.5	450.7	453.9	457.2	460.4	464.4
135°	473.9	474.4	474.9	475.3	475.8	477.2	479.5	481.7	483.9	486.1	490.1
137.5°	504.6	505.0	505.5	506.0	506.5	507.5	508.8	510.1	511.4	512.7	516.4
140°	523.3	523.9	524.6	525.2	525.8	526.5	527.3	528.0	528.6	529.3	532.9
142.5°	543.1	543.4	543.7	544.0	544.3	544.7	545.3	545.8	546.3	546.9	549.9
145°	572.3	572.5	572.7	572.9	573.1	573.4	573.8	574.2	574.6	574.9	576.4
147.5°	597.8	598.1	598.4	598.7	599.1	599.3	599.6	600.0	600.3	600.6	601.3
150°	615.8	615.7	615.6	615.5	615.3	615.5	616.0	616.5	617.0	617.5	617.5
152.5°	630.6	630.8	631.0	631.2	631.3	631.5	631.7	631.9	632.1	632.4	632.7
155°	653.3	653.3	653.3	653.3	653.3	653.4	653.5	653.6	653.8	653.9	654.4
157.5°	673.6	673.3	673.0	672.8	672.5	672.4	672.5	672.7	672.8	672.9	673.4
160°	685.6	685.2	684.8	684.4	684.0	683.9	684.0	684.2	684.3	684.4	684.9
162.5°	696.2	695.9	695.6	695.3	695.0	694.9	694.9	695.0	695.0	695.0	695.6
165°	710.3	710.0	709.8	709.5	709.3	709.2	709.3	709.5	709.6	709.7	710.2
167.5°	722.4	721.9	721.2	720.7	720.2	720.0	720.0	720.0	720.0	720.0	720.7
170°	728.7	728.2	727.7	727.2	726.7	726.5	726.5	726.5	726.5	726.5	727.2
172.5°	733.4	732.9	732.4	731.8	731.3	731.0	731.0	731.0	731.0	731.0	731.8
175°	738.5	738.0	737.5	737.0	736.5	736.3	736.3	736.3	736.3	736.3	737.0
177.5°	741.2	740.8	740.4	740.0	739.5	739.3	739.2	739.1	739.0	738.9	739.5
180°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3



TEST NUMBER: P333263-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-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°	148.6	155.6	162.7	167.3	169.6	171.8	174.0	176.2
90°	136.2	143.8	151.5	156.5	159.0	161.5	164.0	166.5
92.5°	144.7	152.3	159.9	164.8	167.2	169.7	172.0	174.4
95°	159.0	166.5	174.1	179.0	181.5	183.9	186.2	188.6
97.5°	177.7	184.9	192.2	196.8	199.0	201.3	203.5	205.7
100°	190.5	197.9	205.4	210.3	212.3	214.4	216.5	218.5
102.5°	204.2	211.6	218.9	223.8	225.9	228.1	230.2	232.5
105°	226.3	233.2	239.9	244.7	247.1	249.6	252.2	254.7
107.5°	252.2	258.5	265.0	269.0	270.9	272.8	274.6	276.5
110°	269.9	276.1	282.2	286.3	288.2	290.2	292.3	294.3



TEST NUMBER: P333263-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	287.7	293.4	299.1	302.9	304.8	306.7	308.5	310.4
115°	315.6	320.9	326.2	329.7	331.4	333.2	334.8	336.5
117.5°	343.0	348.2	353.5	356.9	358.4	360.0	361.5	363.0
120°	361.9	367.1	372.2	375.5	376.8	378.1	379.4	380.7
122.5°	379.9	384.8	389.5	392.6	394.0	395.5	396.9	398.3
125°	407.0	411.5	416.2	419.1	420.5	421.9	423.2	424.6
127.5°	433.3	437.8	442.1	445.0	446.6	448.0	449.5	451.0
130°	451.7	455.9	460.0	462.6	463.9	465.1	466.5	467.7
132.5°	468.6	472.7	476.9	479.3	480.2	481.2	482.1	483.0
135°	494.0	498.0	501.9	504.4	505.4	506.4	507.5	508.5
137.5°	520.2	523.9	527.7	529.8	530.4	531.0	531.5	532.1
140°	536.4	540.1	543.6	545.7	546.3	546.8	547.4	548.0
142.5°	552.9	555.9	559.0	560.7	561.3	561.9	562.4	563.0
145°	577.9	579.5	581.0	582.2	583.0	583.8	584.7	585.5
147.5°	602.1	602.9	603.7	603.9	603.6	603.3	603.0	602.6
150°	617.5	617.5	617.5	617.6	617.6	617.7	617.7	617.8
152.5°	633.0	633.3	633.6	633.5	633.1	632.7	632.3	631.9
155°	654.9	655.4	655.9	655.9	655.2	654.6	653.9	653.3
157.5°	673.9	674.4	674.9	674.8	673.9	673.1	672.3	671.4
160°	685.4	685.9	686.4	686.4	685.8	685.1	684.5	683.9
162.5°	696.2	696.8	697.5	697.4	696.7	695.9	695.2	694.4
165°	710.7	711.2	711.9	711.7	710.9	710.1	709.3	708.6
167.5°	721.5	722.4	723.1	723.1	722.3	721.4	720.6	719.9
170°	728.0	728.7	729.5	729.4	728.6	727.7	726.8	725.9
172.5°	732.7	733.4	734.2	734.2	733.4	732.6	731.7	730.9
175°	737.8	738.5	739.3	739.2	738.4	737.5	736.6	735.7
177.5°	740.1	740.7	741.3	741.3	740.6	739.9	739.1	738.4
180°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3

(END OF REPORT)