

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: P333264-940

Luminaire Tested: **S125DIP-S1090D590U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333264-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S1090D590U940-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5696.4 lumens
Efficiency: N/A
Efficacy: 116.7 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

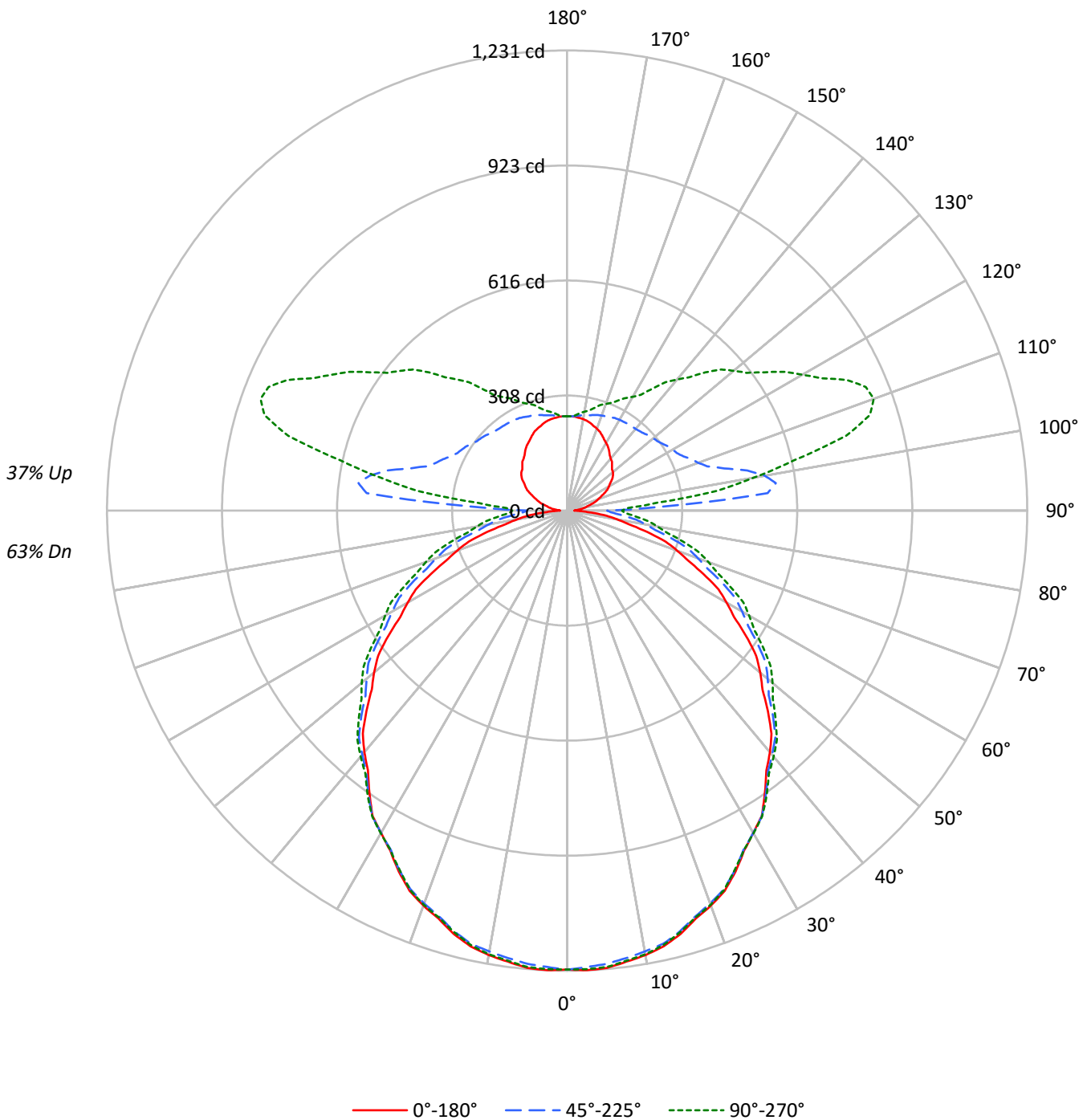
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333264-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P333264-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D4

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	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	72	68	66	64	58	57	55	51
2	90	82	76	70	84	77	71	66	68	63	59	59	56	52	51	48	46	42
3	82	72	64	58	77	68	61	55	60	54	49	52	48	44	45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42	46	41	37	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	64	51	42	36	59	48	40	35	42	36	31	37	32	28	32	28	25	22
7	59	46	38	32	55	43	36	30	38	32	28	34	29	25	30	26	22	20
8	55	42	34	28	51	39	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	26	22	18	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7930	7930	7930
5°	7946	7783	7808
10°	7889	7644	7633
15°	7796	7478	7410
20°	7670	7273	7188
25°	7518	7053	6912
30°	7336	6810	6664
35°	7165	6588	6435
40°	6992	6353	6205
45°	6796	6152	6001
50°	6609	5935	5821
55°	6384	5729	5609
60°	6137	5495	5392
65°	5882	5250	5150
70°	5590	4914	4900
75°	5128	4592	4592
80°	4524	4201	4257
85°	3962	3938	4152



TEST NUMBER: P333264-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.1	2.0
10°-20°	329.6	5.8
20°-30°	490.2	8.6
30°-40°	580.6	10.2
40°-50°	600.3	10.5
50°-60°	553.0	9.7
60°-70°	447.0	7.8
70°-80°	299.4	5.3
80°-90°	156.6	2.7
90°-100°	270.0	4.7
100°-110°	457.4	8.0
110°-120°	412.0	7.2
120°-130°	323.4	5.7
130°-140°	250.6	4.4
140°-150°	183.2	3.2
150°-160°	127.5	2.2
160°-170°	75.1	1.3
170°-180°	24.4	0.4
0°-30°	935.9	16.4
0°-40°	1516.5	26.6
0°-60°	2669.7	46.9
0°-90°	3572.7	62.7
90°-120°	1139.3	20.0
90°-150°	1896.6	33.3
90°-180°	2124.0	37.3
0°-180°	5696.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1228	1225	1217	1226	1226	116
15°	1172	1173	1165	1172	1168	330
25°	1065	1068	1062	1066	1060	490
35°	922	930	927	930	930	577
45°	760	772	779	787	788	586
55°	584	603	622	635	640	522
65°	402	430	459	476	482	399
75°	222	253	291	314	321	235
85°	66	106	148	174	184	70
90°	20	62	107	136	146	14
95°	32	97	538	318	242	30
105°	68	111	435	816	773	72
115°	110	141	343	706	827	108
125°	147	172	312	554	644	130
135°	169	202	291	450	523	131
145°	196	223	283	358	398	122
155°	222	239	276	312	325	102
165°	242	249	264	281	285	68
175°	252	252	254	257	256	24
180°	252	252	252	252	252	



TEST NUMBER: P333264-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1230.7	1230.3	1229.8	1229.5	1229.0	1228.1	1226.5	1225.0	1223.6	1222.1	1223.6
5°	1227.9	1227.4	1226.8	1226.3	1225.7	1224.5	1222.6	1220.8	1218.9	1217.0	1219.1
7.5°	1217.0	1216.8	1216.6	1216.4	1216.2	1215.1	1213.2	1211.2	1209.3	1207.4	1209.2
10°	1207.4	1207.4	1207.4	1207.4	1207.4	1206.3	1204.2	1202.0	1199.9	1197.7	1199.6
12.5°	1193.9	1194.1	1194.4	1194.5	1194.8	1194.0	1192.3	1190.6	1188.9	1187.1	1188.7
15°	1172.5	1172.8	1173.0	1173.3	1173.6	1172.8	1170.9	1169.0	1167.2	1165.3	1166.9
17.5°	1144.5	1145.0	1145.6	1146.1	1146.7	1146.0	1144.2	1142.3	1140.4	1138.5	1139.8
20°	1124.4	1124.9	1125.4	1126.0	1126.5	1125.8	1123.9	1122.0	1120.2	1118.3	1119.1
22.5°	1101.2	1102.2	1103.1	1104.1	1105.1	1104.5	1102.4	1100.4	1098.2	1096.2	1097.2
25°	1065.3	1066.1	1066.9	1067.7	1068.5	1068.2	1066.6	1065.0	1063.4	1061.8	1062.8
27.5°	1025.4	1026.5	1027.7	1028.9	1030.1	1029.7	1028.0	1026.1	1024.3	1022.5	1023.2
30°	995.5	997.1	998.7	1000.3	1001.9	1001.9	1000.3	998.7	997.1	995.5	996.0
32.5°	968.6	969.9	971.3	972.8	974.1	974.2	973.0	971.9	970.7	969.6	970.1
35°	922.1	924.0	925.9	927.7	929.6	930.1	929.3	928.5	927.7	926.9	927.7
37.5°	875.7	877.4	879.0	880.7	882.4	883.2	883.0	882.7	882.4	882.2	883.2
40°	843.8	846.0	848.1	850.2	852.4	853.4	853.1	852.8	852.6	852.3	853.4
42.5°	809.1	812.0	814.8	817.5	820.3	822.0	822.6	823.1	823.8	824.4	825.6
45°	759.6	762.5	765.4	768.4	771.3	773.5	774.8	776.1	777.5	778.8	780.7
47.5°	708.8	711.5	714.3	716.9	719.7	722.2	724.5	726.8	729.2	731.4	734.1
50°	674.1	677.1	680.0	683.0	685.9	688.8	691.8	694.7	697.7	700.6	703.6
52.5°	637.5	641.1	644.7	648.3	651.8	655.4	659.1	662.6	666.2	669.8	673.0
55°	583.8	588.1	592.4	596.6	600.9	605.2	609.5	613.8	618.0	622.3	625.3
57.5°	529.0	534.0	539.2	544.4	549.5	554.6	559.5	564.4	569.3	574.2	577.6
60°	492.3	497.7	503.0	508.4	513.7	519.1	524.4	529.8	535.1	540.5	544.5
62.5°	456.7	462.1	467.4	472.8	478.1	483.7	489.5	495.3	501.1	506.8	511.2
65°	402.1	408.2	414.4	420.5	426.7	432.9	439.3	445.8	452.2	458.6	462.6
67.5°	350.5	356.5	362.4	368.4	374.3	380.5	387.1	393.6	400.1	406.6	411.5
70°	313.0	319.1	325.3	331.4	337.6	344.1	351.1	358.0	365.0	371.9	377.0
72.5°	276.4	282.8	289.1	295.5	301.8	308.8	316.5	324.0	331.6	339.2	344.7
75°	221.5	228.5	235.4	242.4	249.3	257.1	265.6	274.2	282.8	291.3	296.7
77.5°	168.8	176.8	184.9	192.9	200.9	209.0	217.2	225.5	233.7	241.9	247.8
80°	136.0	144.0	152.0	160.1	168.1	176.6	185.7	194.8	203.9	213.0	218.9
82.5°	106.2	114.6	123.1	131.5	140.0	148.8	158.2	167.5	176.8	186.1	191.8
85°	66.2	75.0	83.8	92.6	101.5	110.6	119.9	129.3	138.7	148.0	153.9
87.5°	37.6	46.3	55.1	63.8	72.6	81.7	90.9	100.1	109.3	118.6	124.9
90°	19.8	28.8	38.4	48.0	57.6	67.4	77.0	87.1	96.8	106.8	113.5
92.5°	23.5	32.8	44.9	59.2	75.9	99.3	136.4	192.3	252.2	258.9	233.5
95°	32.5	39.9	50.9	63.5	81.6	112.5	176.0	297.0	446.6	538.5	534.8
97.5°	42.1	49.0	58.1	69.9	86.2	110.2	155.1	245.8	401.4	563.1	645.5
100°	48.9	55.5	63.1	74.4	89.6	112.0	150.1	224.7	361.5	536.4	669.1
102.5°	56.4	62.2	69.0	80.3	94.3	115.9	150.5	214.4	331.0	493.8	648.0
105°	68.3	72.6	79.5	88.8	101.2	121.6	152.0	205.3	298.3	435.0	586.3
107.5°	79.9	84.5	90.6	98.4	110.5	129.0	158.4	204.8	281.8	393.5	524.8
110°	88.3	92.5	97.7	105.6	116.4	135.0	163.3	205.9	274.9	373.0	488.9



TEST NUMBER: P333264-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	97.6	101.2	105.4	112.5	122.8	140.5	167.8	208.1	271.3	359.4	461.3
115°	109.9	112.9	116.3	122.7	132.2	149.4	175.1	211.6	267.3	343.0	429.7
117.5°	121.0	123.8	126.6	132.4	142.3	158.5	182.9	216.3	265.3	332.0	408.3
120°	129.1	131.4	134.3	139.6	149.1	165.3	189.2	219.8	265.1	325.7	395.9
122.5°	136.7	138.2	140.2	145.2	155.0	170.9	194.6	223.7	264.4	319.9	384.5
125°	147.2	148.0	150.3	154.5	164.0	179.8	201.9	229.1	263.9	311.5	368.7
127.5°	154.4	155.8	158.7	164.3	174.2	189.6	210.1	234.6	264.7	304.8	353.7
130°	159.8	161.0	164.8	171.2	181.6	196.5	216.1	239.2	265.8	301.0	344.5
132.5°	162.9	164.8	169.6	176.9	188.0	202.6	221.3	242.3	266.4	297.2	335.7
135°	169.2	171.0	176.8	184.8	195.1	209.6	227.3	245.9	266.6	291.4	323.9
137.5°	177.4	178.7	184.1	192.1	202.3	216.9	232.1	249.1	267.9	287.7	314.1
140°	181.3	182.8	188.9	197.1	206.7	220.6	235.6	251.1	267.7	285.3	308.5
142.5°	187.0	187.9	193.3	201.3	210.4	223.2	237.2	251.6	267.2	283.7	304.2
145°	195.6	196.3	201.1	207.9	216.9	228.4	241.7	254.3	268.0	282.9	299.4
147.5°	203.2	203.8	208.2	214.8	222.7	233.1	244.7	256.2	268.6	281.5	295.3
150°	208.6	209.6	213.1	219.7	226.9	235.5	246.7	257.3	268.6	280.3	292.5
152.5°	214.3	214.8	218.0	223.8	230.5	238.4	248.7	258.2	268.1	278.7	289.6
155°	221.8	221.8	224.8	229.9	235.0	242.1	250.7	258.9	267.1	275.7	284.8
157.5°	228.5	228.4	230.9	235.2	239.7	245.0	252.5	259.4	265.7	272.6	280.4
160°	233.0	232.5	234.5	238.1	242.1	246.7	253.3	259.4	264.5	270.6	276.7
162.5°	236.7	236.1	238.2	241.3	244.6	248.3	254.1	259.0	263.3	268.1	273.5
165°	242.1	241.1	242.6	245.1	247.2	250.3	254.3	258.4	261.4	264.5	268.6
167.5°	245.8	245.3	246.2	247.6	249.1	250.9	254.3	257.2	258.6	260.9	263.8
170°	248.3	247.7	248.3	249.2	250.3	251.8	254.3	256.4	257.3	258.9	260.9
172.5°	249.9	249.0	249.4	250.5	251.1	251.8	254.0	255.6	255.7	256.5	258.1
175°	251.8	250.7	251.3	251.8	251.8	251.8	253.3	254.3	253.8	253.8	254.3
177.5°	252.7	251.9	251.9	252.3	251.9	251.9	252.7	253.1	252.3	252.3	252.7
180°	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3



TEST NUMBER: P333264-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1225.0	1226.5	1228.1	1228.7	1228.5	1228.2	1228.1	1227.9
5°	1221.3	1223.4	1225.6	1226.5	1226.3	1226.0	1225.7	1225.5
7.5°	1211.1	1213.0	1214.9	1215.7	1215.4	1215.1	1214.9	1214.6
10°	1201.5	1203.4	1205.2	1206.0	1205.8	1205.5	1205.2	1205.0
12.5°	1190.1	1191.5	1192.9	1193.3	1192.7	1191.9	1191.2	1190.5
15°	1168.5	1170.1	1171.7	1172.0	1170.9	1169.8	1168.8	1167.7
17.5°	1141.0	1142.2	1143.4	1143.7	1143.1	1142.5	1141.8	1141.2
20°	1119.9	1120.7	1121.5	1122.0	1122.0	1122.0	1122.0	1122.0
22.5°	1098.2	1099.2	1100.2	1100.4	1099.7	1099.1	1098.5	1097.9
25°	1063.9	1065.0	1066.0	1065.9	1064.5	1063.2	1061.8	1060.5
27.5°	1024.0	1024.8	1025.5	1025.6	1025.1	1024.7	1024.1	1023.7
30°	996.6	997.1	997.6	997.8	997.6	997.3	997.0	996.8
32.5°	970.6	971.2	971.7	971.8	971.5	971.3	971.0	970.7
35°	928.5	929.3	930.1	930.5	930.5	930.5	930.5	930.5
37.5°	884.3	885.4	886.4	886.9	886.8	886.7	886.5	886.4
40°	854.4	855.5	856.6	857.4	857.9	858.4	859.0	859.5
42.5°	826.9	828.2	829.5	830.2	830.3	830.4	830.5	830.6
45°	782.6	784.4	786.3	787.4	787.6	787.9	788.2	788.5
47.5°	736.9	739.6	742.3	744.0	744.6	745.2	745.7	746.4
50°	706.5	709.4	712.4	714.3	715.1	715.9	716.7	717.5
52.5°	676.1	679.2	682.4	684.3	684.8	685.5	686.1	686.6
55°	628.2	631.2	634.1	636.1	637.2	638.3	639.4	640.4
57.5°	580.9	584.3	587.7	589.8	590.6	591.4	592.2	593.0
60°	548.5	552.5	556.5	558.9	559.7	560.5	561.3	562.1
62.5°	515.7	520.1	524.6	527.3	528.3	529.3	530.3	531.4
65°	466.6	470.6	474.7	477.2	478.3	479.4	480.5	481.5
67.5°	416.3	421.2	426.1	429.3	430.6	432.0	433.4	434.8
70°	382.1	387.2	392.3	395.7	397.3	398.9	400.5	402.1
72.5°	350.3	355.8	361.2	364.6	365.8	366.9	368.1	369.3
75°	302.0	307.4	312.7	316.0	317.4	318.7	320.0	321.4
77.5°	253.7	259.6	265.5	268.9	270.0	271.1	272.2	273.2
80°	224.8	230.7	236.6	240.0	241.1	242.2	243.3	244.3
82.5°	197.4	203.1	208.7	212.6	214.5	216.4	218.4	220.3
85°	159.8	165.7	171.6	175.6	177.7	179.9	182.0	184.1
87.5°	131.2	137.4	143.7	147.8	149.7	151.6	153.6	155.4
90°	120.2	126.8	133.5	138.5	140.4	142.2	144.6	146.5
92.5°	196.9	178.1	167.8	164.3	159.6	160.2	161.4	162.5
95°	465.4	394.0	337.2	298.5	264.2	250.7	248.6	242.3
97.5°	637.8	589.2	533.9	478.1	448.5	421.9	408.9	404.2
100°	713.9	694.6	647.8	598.5	565.1	530.0	512.8	506.3
102.5°	736.9	757.7	738.0	705.6	669.7	645.2	626.4	622.0
105°	713.7	788.8	816.5	814.5	800.1	785.2	776.9	772.7
107.5°	650.5	748.8	811.5	841.6	851.5	853.0	851.3	848.9
110°	603.9	705.6	782.4	829.1	853.9	865.4	870.8	872.7



TEST NUMBER: P333264-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	566.2	662.9	740.3	794.6	829.9	848.4	859.2	864.7
115°	518.4	602.1	676.6	735.2	776.5	802.5	818.4	826.6
117.5°	485.1	557.6	622.1	676.2	717.6	744.8	760.7	766.6
120°	466.5	532.2	592.6	640.5	679.8	705.8	721.1	726.7
122.5°	451.3	512.2	566.4	611.3	646.4	670.4	685.7	691.0
125°	429.4	485.6	534.1	573.5	603.4	625.6	638.1	644.5
127.5°	407.0	459.4	504.6	541.6	569.1	589.1	601.2	604.9
130°	393.5	442.0	485.4	521.0	547.8	565.9	577.5	581.8
132.5°	379.4	425.2	464.8	499.2	525.8	543.6	554.1	558.7
135°	359.9	398.5	434.5	465.9	489.6	507.7	518.3	522.6
137.5°	343.8	375.3	405.6	432.2	453.3	469.7	479.2	483.7
140°	334.3	361.2	387.5	410.9	430.8	445.1	453.8	457.4
142.5°	326.3	349.0	371.7	392.0	409.0	421.3	429.6	432.8
145°	316.6	333.6	350.7	365.7	379.0	388.7	395.3	398.4
147.5°	308.2	321.5	333.9	344.8	354.9	362.3	366.0	367.5
150°	303.6	314.9	324.5	333.9	341.7	348.1	350.4	351.2
152.5°	299.6	309.6	318.4	325.6	332.1	337.0	339.0	339.7
155°	293.5	301.7	308.7	314.3	319.4	323.0	324.5	325.0
157.5°	287.4	294.1	299.6	304.0	307.9	310.9	312.3	312.2
160°	283.3	288.4	293.5	297.0	300.6	303.2	304.2	303.6
162.5°	278.8	283.6	287.8	291.0	293.7	295.9	296.0	296.0
165°	272.6	276.2	279.3	281.8	283.8	284.8	284.8	284.8
167.5°	266.7	269.1	271.4	273.2	274.3	275.2	274.7	274.6
170°	263.5	265.0	266.5	267.5	268.6	269.1	269.1	268.6
172.5°	259.8	261.4	262.4	263.1	263.3	264.2	263.4	262.9
175°	255.8	255.8	256.9	256.9	256.9	257.3	256.4	255.8
177.5°	253.1	253.5	253.5	253.5	253.1	253.5	252.3	252.3
180°	252.3	252.3	252.3	252.3	252.3	252.3	252.3	252.3

(END OF REPORT)