

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: P333273-930

Luminaire Tested: **S125DIP-S1090D810U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333273-930
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-S1090D810U930-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5850.1 lumens
Efficiency: N/A
Efficacy: 107.5 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

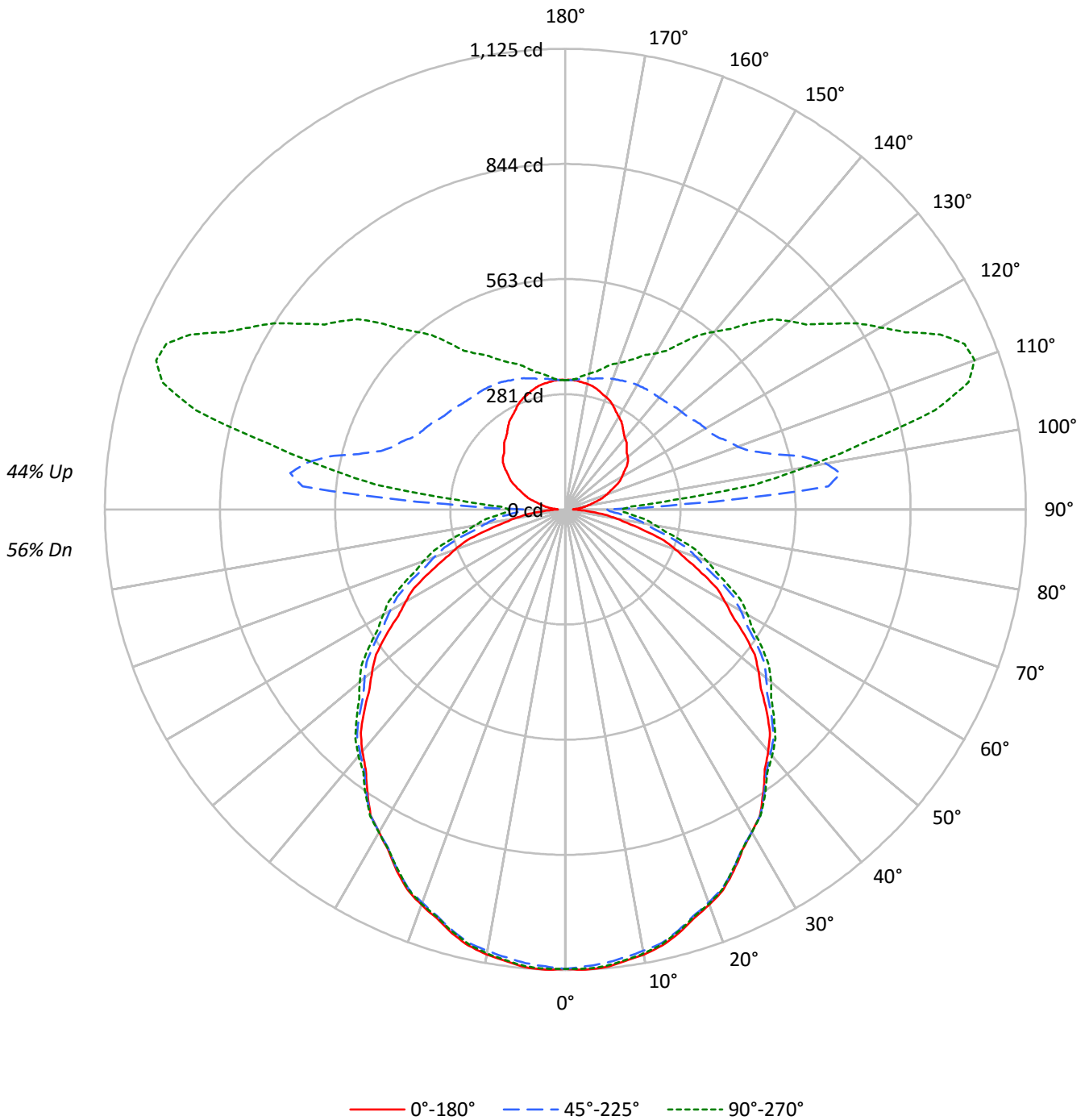
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333273-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P333273-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	61	61	61	56
1	98	94	89	85	91	87	83	80	75	72	69	63	61	60	53	52	50	45
2	89	81	75	69	82	76	70	65	65	61	57	55	52	49	46	44	42	37
3	81	71	63	57	75	66	59	54	57	52	47	49	45	41	41	38	35	31
4	74	63	55	48	68	59	51	45	51	45	40	43	39	35	36	33	30	27
5	68	56	47	41	63	52	45	39	45	39	35	39	34	30	33	29	26	23
6	63	50	42	36	58	47	39	34	41	35	30	35	30	26	29	26	23	20
7	58	45	37	31	54	42	35	30	37	31	26	32	27	23	27	23	20	18
8	54	41	33	28	50	38	31	26	34	28	23	29	24	21	25	21	18	16
9	50	37	30	25	46	35	28	23	31	25	21	27	22	19	23	19	16	14
10	47	34	27	22	43	32	26	21	28	23	19	25	20	17	21	17	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7251	7251	7251
5°	7265	7116	7139
10°	7213	6989	6979
15°	7128	6837	6775
20°	7012	6650	6572
25°	6874	6448	6320
30°	6707	6226	6092
35°	6552	6023	5884
40°	6393	5809	5674
45°	6214	5626	5487
50°	6043	5427	5322
55°	5837	5239	5128
60°	5611	5024	4931
65°	5377	4800	4709
70°	5112	4494	4480
75°	4688	4200	4198
80°	4134	3842	3893
85°	3621	3600	3798



TEST NUMBER: P333273-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.2	1.8
10°-20°	301.3	5.2
20°-30°	448.2	7.7
30°-40°	530.9	9.1
40°-50°	548.9	9.4
50°-60°	505.6	8.6
60°-70°	408.7	7.0
70°-80°	273.7	4.7
80°-90°	143.7	2.5
90°-100°	308.8	5.3
100°-110°	551.4	9.4
110°-120°	501.7	8.6
120°-130°	397.1	6.8
130°-140°	310.5	5.3
140°-150°	228.9	3.9
150°-160°	159.8	2.7
160°-170°	94.2	1.6
170°-180°	30.6	0.5
0°-30°	855.7	14.6
0°-40°	1386.5	23.7
0°-60°	2441.0	41.7
0°-90°	3267.1	55.8
90°-120°	1362.0	23.3
90°-150°	2298.4	39.3
90°-180°	2583.0	44.2
0°-180°	5850.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1123	1120	1113	1121	1120	106
15°	1072	1073	1065	1071	1068	302
25°	974	977	971	975	970	448
35°	843	850	848	851	851	527
45°	694	706	712	719	721	536
55°	534	551	569	581	586	477
65°	368	393	419	435	440	365
75°	202	232	266	287	294	215
85°	60	97	135	159	168	64
90°	18	59	100	128	138	13
95°	35	106	645	360	262	34
105°	82	129	523	992	935	86
115°	135	171	414	862	1010	133
125°	183	214	381	678	790	162
135°	211	253	362	556	644	164
145°	245	279	354	447	496	153
155°	278	299	346	390	407	128
165°	304	312	332	352	357	85
175°	316	316	318	322	321	30
180°	316	316	316	316	316	



TEST NUMBER: P333273-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1125.3	1124.9	1124.5	1124.1	1123.7	1122.8	1121.4	1120.1	1118.8	1117.4	1118.8
5°	1122.7	1122.2	1121.7	1121.2	1120.7	1119.6	1117.9	1116.1	1114.4	1112.7	1114.7
7.5°	1112.7	1112.6	1112.3	1112.1	1112.0	1111.0	1109.2	1107.4	1105.7	1103.9	1105.6
10°	1103.9	1103.9	1103.9	1103.9	1103.9	1102.9	1101.0	1099.0	1097.1	1095.1	1096.8
12.5°	1091.6	1091.8	1092.0	1092.2	1092.4	1091.7	1090.1	1088.6	1087.0	1085.4	1086.8
15°	1072.0	1072.3	1072.5	1072.8	1073.0	1072.3	1070.6	1068.9	1067.1	1065.4	1066.9
17.5°	1046.4	1046.9	1047.4	1047.9	1048.4	1047.8	1046.1	1044.4	1042.7	1041.0	1042.1
20°	1028.0	1028.5	1029.0	1029.5	1030.0	1029.3	1027.6	1025.9	1024.2	1022.5	1023.2
22.5°	1006.8	1007.7	1008.6	1009.5	1010.4	1009.8	1008.0	1006.1	1004.1	1002.2	1003.1
25°	974.0	974.8	975.5	976.2	977.0	976.6	975.2	973.7	972.2	970.8	971.8
27.5°	937.5	938.6	939.6	940.8	941.8	941.5	939.9	938.2	936.5	934.9	935.6
30°	910.2	911.7	913.1	914.6	916.1	916.1	914.6	913.1	911.7	910.2	910.7
32.5°	885.6	886.8	888.1	889.4	890.6	890.7	889.7	888.6	887.5	886.5	887.0
35°	843.1	844.8	846.5	848.2	849.9	850.4	849.7	849.0	848.2	847.5	848.2
37.5°	800.6	802.2	803.7	805.3	806.8	807.6	807.3	807.1	806.8	806.6	807.6
40°	771.5	773.5	775.4	777.4	779.3	780.2	780.0	779.8	779.5	779.3	780.2
42.5°	739.8	742.4	744.9	747.5	750.0	751.5	752.1	752.6	753.2	753.7	754.9
45°	694.5	697.2	699.9	702.5	705.2	707.2	708.4	709.6	710.9	712.1	713.8
47.5°	648.1	650.5	653.1	655.5	658.0	660.3	662.4	664.6	666.7	668.7	671.2
50°	616.4	619.1	621.7	624.4	627.1	629.8	632.5	635.2	637.9	640.6	643.3
52.5°	582.9	586.2	589.5	592.7	596.0	599.2	602.6	605.8	609.1	612.4	615.3
55°	533.8	537.7	541.6	545.5	549.4	553.3	557.3	561.2	565.1	569.0	571.7
57.5°	483.6	488.3	493.0	497.7	502.4	507.0	511.5	516.0	520.5	525.0	528.1
60°	450.1	455.0	459.9	464.8	469.7	474.6	479.5	484.4	489.3	494.2	497.8
62.5°	417.6	422.5	427.4	432.3	437.2	442.2	447.5	452.8	458.1	463.3	467.4
65°	367.6	373.2	378.9	384.5	390.1	395.8	401.7	407.6	413.4	419.3	423.0
67.5°	320.5	326.0	331.3	336.8	342.2	347.9	353.9	359.9	365.8	371.8	376.3
70°	286.2	291.8	297.4	303.0	308.7	314.6	321.0	327.3	333.7	340.1	344.7
72.5°	252.7	258.5	264.3	270.2	276.0	282.3	289.3	296.3	303.2	310.1	315.2
75°	202.5	208.9	215.2	221.6	228.0	235.1	242.9	250.7	258.5	266.4	271.3
77.5°	154.3	161.7	169.0	176.3	183.7	191.1	198.6	206.2	213.7	221.2	226.6
80°	124.3	131.7	139.0	146.3	153.7	161.5	169.8	178.1	186.5	194.8	200.2
82.5°	97.1	104.8	112.5	120.3	128.0	136.1	144.6	153.1	161.7	170.2	175.4
85°	60.5	68.6	76.6	84.7	92.8	101.1	109.7	118.2	126.8	135.3	140.7
87.5°	34.5	42.4	50.5	58.6	66.7	75.0	83.4	92.0	100.4	109.0	114.8
90°	18.3	26.7	35.8	44.9	54.1	63.3	72.3	81.9	90.8	100.4	106.7
92.5°	23.6	32.5	45.1	60.3	78.4	104.9	148.3	215.2	287.1	292.3	258.5
95°	35.4	42.3	53.8	67.2	87.6	123.6	200.1	348.7	533.0	645.1	638.4
97.5°	47.9	54.4	63.7	76.5	94.8	122.3	175.5	286.3	478.3	678.0	779.3
100°	56.7	63.1	70.8	83.0	100.2	125.8	170.6	261.3	429.8	646.0	810.6
102.5°	66.5	72.1	78.8	91.2	107.0	131.8	172.3	249.6	392.8	594.1	785.5
105°	81.9	85.9	92.9	103.2	117.3	140.8	176.2	240.3	354.1	522.7	710.5
107.5°	96.9	101.5	107.9	116.5	130.4	151.6	185.8	241.5	335.3	472.7	635.4
110°	107.8	112.0	117.5	126.1	138.7	160.1	193.1	243.9	327.9	448.3	591.8



TEST NUMBER: P333273-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	119.5	123.1	127.5	135.6	147.5	168.1	199.8	247.9	324.6	432.5	558.6
115°	135.3	138.4	142.0	149.4	160.7	180.7	210.6	254.0	321.6	413.9	521.0
117.5°	149.6	152.6	155.8	162.7	174.6	193.6	221.9	261.6	320.8	402.2	496.2
120°	159.8	162.4	165.7	172.2	183.8	202.8	230.8	267.0	321.7	395.6	481.9
122.5°	169.6	171.4	173.7	179.8	192.0	210.8	238.6	273.0	322.0	389.5	469.0
125°	182.9	183.9	186.9	192.3	204.2	223.1	249.1	281.4	323.2	381.0	451.3
127.5°	192.4	194.0	197.9	204.9	217.5	236.0	260.2	289.5	325.8	374.5	434.4
130°	199.0	200.6	205.5	213.6	226.7	244.9	268.1	295.7	327.8	370.8	424.0
132.5°	203.3	205.6	211.7	220.9	234.8	252.7	275.1	300.4	329.7	367.2	414.3
135°	211.3	213.6	221.0	231.0	244.1	262.0	283.6	306.3	331.6	362.0	401.5
137.5°	221.5	223.2	230.2	240.2	253.2	271.2	290.0	311.0	334.2	358.7	390.7
140°	226.7	228.7	236.4	246.5	258.6	276.0	294.7	314.1	334.7	356.6	384.8
142.5°	233.9	235.1	242.1	252.1	263.5	279.6	297.1	315.3	334.7	355.4	380.1
145°	244.6	245.6	251.8	260.5	271.7	286.3	302.8	318.7	336.0	354.4	374.8
147.5°	254.7	255.5	261.0	269.3	279.2	292.1	306.6	321.1	336.6	352.8	370.0
150°	261.4	262.6	267.1	275.4	284.3	295.1	309.2	322.5	336.6	351.2	366.6
152.5°	268.5	269.3	273.2	280.5	288.9	298.7	311.7	323.6	336.1	349.2	363.0
155°	277.9	277.9	281.8	288.1	294.5	303.5	314.3	324.5	334.7	345.5	357.0
157.5°	286.3	286.3	289.3	294.7	300.4	307.1	316.4	325.1	333.0	341.7	351.4
160°	292.0	291.3	293.9	298.3	303.5	309.2	317.5	325.1	331.5	339.2	346.8
162.5°	296.5	296.0	298.5	302.4	306.5	311.2	318.5	324.6	330.0	336.1	342.7
165°	303.5	302.1	304.1	307.3	309.8	313.6	318.7	323.8	327.7	331.5	336.6
167.5°	308.0	307.4	308.5	310.3	312.1	314.5	318.7	322.3	324.1	327.0	330.6
170°	311.1	310.5	311.1	312.3	313.6	315.5	318.7	321.3	322.5	324.5	327.0
172.5°	313.2	312.0	312.6	313.9	314.6	315.5	318.2	320.2	320.5	321.4	323.4
175°	315.5	314.3	315.0	315.5	315.5	315.5	317.5	318.7	318.1	318.1	318.7
177.5°	316.7	315.7	315.7	316.2	315.7	315.7	316.7	317.2	316.2	316.2	316.7
180°	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2



TEST NUMBER: P333273-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1120.1	1121.4	1122.8	1123.4	1123.2	1123.0	1122.8	1122.7
5°	1116.6	1118.6	1120.5	1121.4	1121.2	1121.0	1120.7	1120.5
7.5°	1107.3	1109.1	1110.8	1111.5	1111.3	1111.0	1110.8	1110.5
10°	1098.5	1100.2	1102.0	1102.7	1102.4	1102.2	1102.0	1101.7
12.5°	1088.1	1089.4	1090.7	1091.0	1090.5	1089.8	1089.2	1088.5
15°	1068.4	1069.8	1071.3	1071.5	1070.6	1069.6	1068.6	1067.6
17.5°	1043.3	1044.3	1045.5	1045.7	1045.1	1044.6	1044.0	1043.4
20°	1023.9	1024.7	1025.4	1025.8	1025.8	1025.8	1025.8	1025.8
22.5°	1004.1	1005.0	1005.9	1006.1	1005.5	1004.9	1004.4	1003.8
25°	972.7	973.7	974.7	974.5	973.3	972.1	970.9	969.6
27.5°	936.2	936.9	937.6	937.8	937.3	936.9	936.4	936.0
30°	911.2	911.7	912.2	912.3	912.1	911.8	911.6	911.3
32.5°	887.5	887.9	888.4	888.5	888.3	888.0	887.8	887.5
35°	849.0	849.7	850.4	850.8	850.8	850.8	850.8	850.8
37.5°	808.5	809.5	810.5	810.9	810.8	810.7	810.6	810.5
40°	781.2	782.2	783.2	783.9	784.4	784.9	785.4	785.9
42.5°	756.0	757.2	758.4	759.0	759.1	759.2	759.4	759.5
45°	715.5	717.2	718.9	719.9	720.2	720.4	720.6	720.9
47.5°	673.8	676.2	678.7	680.2	680.8	681.3	681.8	682.4
50°	646.0	648.7	651.3	653.1	653.8	654.5	655.3	656.0
52.5°	618.2	621.0	623.9	625.7	626.1	626.7	627.3	627.8
55°	574.4	577.1	579.8	581.6	582.6	583.6	584.6	585.5
57.5°	531.2	534.3	537.4	539.2	540.0	540.7	541.4	542.2
60°	501.5	505.2	508.8	511.0	511.8	512.5	513.2	514.0
62.5°	471.5	475.6	479.6	482.1	483.1	484.0	484.9	485.8
65°	426.6	430.3	434.0	436.3	437.3	438.3	439.3	440.3
67.5°	380.7	385.1	389.6	392.5	393.7	395.0	396.2	397.5
70°	349.4	354.0	358.7	361.7	363.2	364.7	366.2	367.6
72.5°	320.2	325.3	330.3	333.4	334.4	335.5	336.6	337.7
75°	276.1	281.0	285.9	288.9	290.2	291.4	292.6	293.8
77.5°	232.0	237.3	242.7	245.9	246.9	247.9	248.8	249.8
80°	205.5	210.9	216.3	219.5	220.5	221.4	222.4	223.4
82.5°	180.5	185.7	190.9	194.4	196.2	197.9	199.7	201.4
85°	146.1	151.5	156.9	160.5	162.5	164.4	166.4	168.4
87.5°	120.5	126.3	132.0	136.0	137.7	139.4	141.2	142.9
90°	113.0	119.3	125.5	130.4	132.2	133.9	136.2	137.9
92.5°	210.5	185.0	170.2	164.3	157.8	158.0	158.8	159.6
95°	549.4	458.0	384.9	334.9	291.4	273.9	270.6	262.0
97.5°	767.7	704.9	633.7	562.6	524.9	490.8	474.0	467.5
100°	864.8	838.7	778.2	715.2	672.7	628.3	606.1	597.4
102.5°	895.0	919.2	892.7	851.0	805.4	774.3	750.2	744.0
105°	868.5	960.7	993.6	989.9	971.2	951.9	940.9	934.9
107.5°	791.2	912.6	989.4	1025.9	1037.7	1039.1	1036.4	1032.8
110°	734.2	860.0	954.5	1011.9	1042.3	1056.1	1062.3	1064.0



TEST NUMBER: P333273-930

CATALOG NUMBER: S125DIP-S1090D810U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	688.4	807.9	903.3	970.2	1013.9	1036.4	1049.2	1055.5
115°	630.6	733.8	825.5	897.9	949.1	981.2	1000.5	1010.2
117.5°	590.8	680.2	759.6	826.2	877.6	910.9	930.3	937.0
120°	569.0	649.6	723.9	782.9	831.4	863.6	882.2	888.8
122.5°	551.3	626.1	692.6	747.9	791.4	820.9	839.6	845.6
125°	525.9	594.8	654.2	702.7	739.6	767.0	782.2	789.8
127.5°	499.9	564.2	619.5	665.0	698.9	723.3	738.0	742.2
130°	484.0	543.6	596.7	640.5	673.6	695.9	709.8	714.9
132.5°	467.8	523.7	572.3	614.4	647.3	669.4	682.2	687.5
135°	445.5	492.6	536.6	575.1	604.4	626.6	639.4	644.4
137.5°	426.9	465.4	502.1	534.9	561.0	581.1	592.7	597.9
140°	416.2	448.8	480.9	509.5	534.0	551.6	562.1	566.3
142.5°	407.0	434.7	462.3	487.1	508.1	523.1	533.1	536.8
145°	395.7	416.8	437.7	456.1	472.3	484.1	492.1	495.7
147.5°	386.0	402.4	418.0	431.4	443.9	453.1	457.5	459.2
150°	380.6	394.6	406.7	418.3	428.1	436.0	438.8	439.7
152.5°	375.4	388.0	399.1	408.0	416.1	422.2	424.9	425.5
155°	367.9	378.1	386.9	394.0	400.3	404.8	406.7	407.3
157.5°	360.2	368.6	375.4	381.0	386.0	389.6	391.4	391.3
160°	355.1	361.4	367.9	372.3	376.7	379.9	381.2	380.6
162.5°	349.4	355.3	360.7	364.6	368.1	370.7	371.0	370.9
165°	341.7	346.2	350.0	353.2	355.7	357.0	357.0	357.0
167.5°	334.3	337.2	340.1	342.4	343.7	344.9	344.4	344.2
170°	330.2	332.2	334.0	335.3	336.6	337.2	337.2	336.6
172.5°	325.6	327.5	329.0	329.7	330.0	331.1	330.1	329.5
175°	320.7	320.7	322.0	322.0	322.0	322.5	321.3	320.7
177.5°	317.2	317.7	317.7	317.7	317.2	317.7	316.2	316.2
180°	316.2	316.2	316.2	316.2	316.2	316.2	316.2	316.2

(END OF REPORT)