

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: P333273-940

Luminaire Tested: **S125DIP-S1090D810U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333273-940
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-S1090D810U940-4F0-1E-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: 6398.3 lumens
Efficiency: N/A
Efficacy: 117.6 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

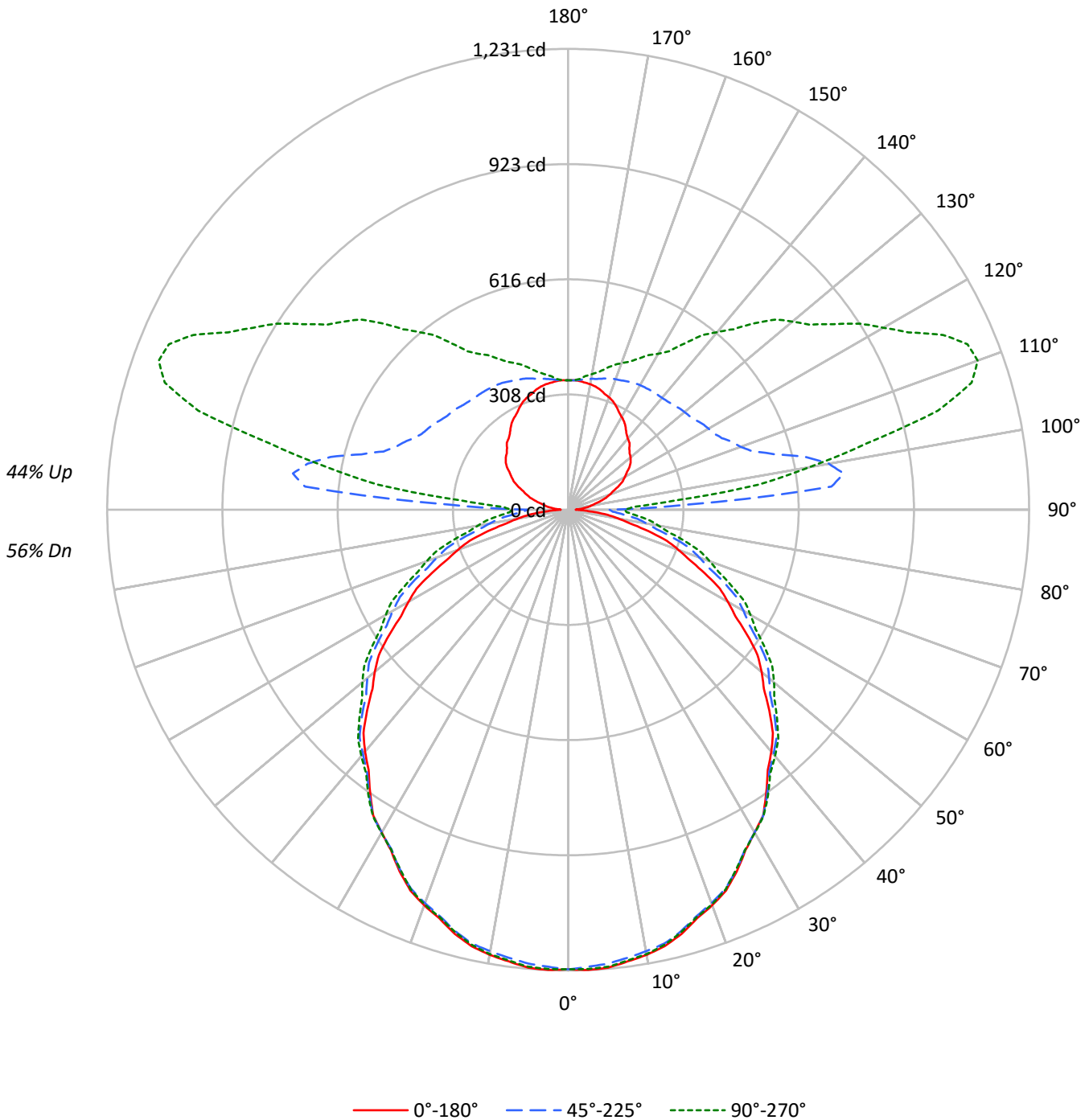
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	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°	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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.1	1.8
10°-20°	329.6	5.2
20°-30°	490.2	7.7
30°-40°	580.6	9.1
40°-50°	600.3	9.4
50°-60°	553.0	8.6
60°-70°	447.0	7.0
70°-80°	299.4	4.7
80°-90°	157.2	2.5
90°-100°	337.8	5.3
100°-110°	603.1	9.4
110°-120°	548.8	8.6
120°-130°	434.3	6.8
130°-140°	339.6	5.3
140°-150°	250.4	3.9
150°-160°	174.7	2.7
160°-170°	103.0	1.6
170°-180°	33.5	0.5
0°-30°	935.9	14.6
0°-40°	1516.5	23.7
0°-60°	2669.7	41.7
0°-90°	3573.3	55.8
90°-120°	1489.6	23.3
90°-150°	2513.8	39.3
90°-180°	2825.0	44.2
0°-180°	6398.3	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	71
90°	20	64	110	140	151	14
95°	39	116	706	394	287	37
105°	90	141	572	1085	1022	95
115°	148	187	453	942	1105	146
125°	200	234	417	742	864	177
135°	231	277	396	608	705	179
145°	268	305	388	489	542	167
155°	304	327	378	427	446	140
165°	332	341	363	385	390	93
175°	345	345	348	352	351	33
180°	346	346	346	346	346	



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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°	37.7	46.4	55.2	64.1	72.9	82.0	91.2	100.6	109.9	119.2	125.6
90°	20.0	29.2	39.1	49.1	59.1	69.3	79.1	89.6	99.3	109.9	116.7
92.5°	25.9	35.6	49.3	65.9	85.8	114.8	162.2	235.3	314.0	319.7	282.8
95°	38.7	46.3	58.9	73.5	95.8	135.2	218.8	381.4	582.9	705.6	698.2
97.5°	52.4	59.5	69.6	83.6	103.7	133.8	191.9	313.1	523.2	741.5	852.3
100°	62.1	69.0	77.5	90.8	109.6	137.6	186.6	285.8	470.1	706.6	886.5
102.5°	72.8	78.8	86.2	99.7	117.0	144.1	188.4	273.0	429.6	649.8	859.1
105°	89.6	93.9	101.7	112.9	128.3	154.0	192.7	262.8	387.3	571.7	777.1
107.5°	106.0	111.0	118.1	127.4	142.6	165.9	203.2	264.1	366.8	517.0	694.9
110°	117.9	122.5	128.5	137.9	151.7	175.1	211.2	266.8	358.6	490.3	647.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	130.7	134.6	139.5	148.3	161.3	183.9	218.6	271.2	355.0	473.1	610.9
115°	148.0	151.3	155.3	163.5	175.8	197.6	230.3	277.8	351.7	452.7	569.8
117.5°	163.6	166.9	170.4	177.9	191.0	211.8	242.7	286.1	350.9	439.9	542.7
120°	174.8	177.6	181.2	188.3	201.0	221.9	252.4	292.0	351.9	432.7	527.1
122.5°	185.5	187.4	190.0	196.6	210.0	230.6	260.9	298.6	352.1	426.0	513.0
125°	200.0	201.2	204.4	210.4	223.4	244.1	272.4	307.7	353.5	416.7	493.6
127.5°	210.4	212.2	216.4	224.1	237.9	258.2	284.6	316.6	356.3	409.6	475.1
130°	217.7	219.5	224.8	233.6	248.0	267.9	293.2	323.4	358.6	405.6	463.7
132.5°	222.3	224.9	231.5	241.7	256.8	276.3	300.9	328.5	360.6	401.6	453.1
135°	231.1	233.6	241.7	252.6	267.0	286.6	310.1	335.0	362.7	395.9	439.1
137.5°	242.3	244.2	251.7	262.7	276.9	296.6	317.2	340.1	365.5	392.4	427.3
140°	248.0	250.1	258.5	269.7	282.9	301.8	322.4	343.5	366.0	390.0	420.9
142.5°	255.8	257.2	264.7	275.7	288.2	305.8	324.9	344.8	366.0	388.7	415.7
145°	267.5	268.7	275.4	284.9	297.1	313.1	331.2	348.6	367.5	387.6	409.9
147.5°	278.6	279.5	285.4	294.5	305.4	319.5	335.4	351.2	368.1	385.8	404.7
150°	285.9	287.2	292.1	301.2	310.9	322.8	338.1	352.8	368.1	384.1	400.9
152.5°	293.6	294.5	298.8	306.7	316.0	326.7	340.9	353.9	367.6	381.9	397.0
155°	304.0	304.0	308.2	315.1	322.1	331.9	343.8	354.9	366.0	377.9	390.5
157.5°	313.2	313.1	316.4	322.4	328.5	335.9	346.1	355.6	364.3	373.7	384.3
160°	319.3	318.6	321.5	326.3	331.9	338.1	347.2	355.6	362.6	371.0	379.3
162.5°	324.3	323.7	326.5	330.7	335.2	340.4	348.3	355.0	360.9	367.6	374.8
165°	331.9	330.5	332.6	336.1	338.9	343.0	348.6	354.2	358.4	362.6	368.1
167.5°	336.9	336.2	337.4	339.4	341.3	344.0	348.6	352.5	354.5	357.7	361.6
170°	340.3	339.6	340.3	341.6	343.0	345.1	348.6	351.4	352.8	354.9	357.7
172.5°	342.5	341.3	341.9	343.3	344.1	345.1	348.0	350.3	350.5	351.5	353.7
175°	345.1	343.8	344.5	345.1	345.1	345.1	347.2	348.6	347.9	347.9	348.6
177.5°	346.3	345.3	345.3	345.8	345.3	345.3	346.3	347.0	345.8	345.8	346.3
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8



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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°	131.8	138.1	144.4	148.7	150.6	152.5	154.4	156.3
90°	123.6	130.5	137.2	142.7	144.5	146.4	149.0	150.9
92.5°	230.2	202.3	186.1	179.7	172.6	172.8	173.7	174.5
95°	600.9	500.9	421.0	366.3	318.7	299.6	296.0	286.6
97.5°	839.6	771.0	693.0	615.4	574.1	536.8	518.4	511.3
100°	945.8	917.3	851.1	782.2	735.8	687.2	662.9	653.4
102.5°	978.9	1005.4	976.3	930.8	880.9	846.9	820.5	813.7
105°	949.9	1050.7	1086.7	1082.7	1062.2	1041.1	1029.0	1022.5
107.5°	865.3	998.1	1082.1	1122.0	1135.0	1136.5	1133.5	1129.6
110°	803.0	940.6	1043.9	1106.7	1140.0	1155.0	1161.8	1163.7



TEST NUMBER: P333273-940

CATALOG NUMBER: S125DIP-S1090D810U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	753.0	883.6	987.9	1061.1	1108.9	1133.5	1147.5	1154.4
115°	689.6	802.5	902.9	982.0	1038.0	1073.2	1094.3	1104.9
117.5°	646.2	744.0	830.8	903.7	959.8	996.3	1017.4	1024.8
120°	622.3	710.5	791.8	856.2	909.4	944.5	964.9	972.1
122.5°	603.0	684.8	757.5	818.0	865.6	897.9	918.3	924.9
125°	575.2	650.6	715.5	768.6	809.0	838.8	855.5	863.8
127.5°	546.7	617.1	677.6	727.4	764.4	791.1	807.2	811.8
130°	529.4	594.6	652.6	700.5	736.7	761.1	776.3	781.9
132.5°	511.7	572.8	626.0	672.0	708.0	732.2	746.1	752.0
135°	487.2	538.8	586.9	629.0	661.0	685.4	699.3	704.8
137.5°	466.9	509.0	549.2	585.1	613.6	635.6	648.3	653.9
140°	455.2	490.9	525.9	557.2	584.1	603.3	614.8	619.4
142.5°	445.1	475.5	505.6	532.7	555.7	572.1	583.1	587.1
145°	432.8	455.8	478.8	498.8	516.6	529.5	538.2	542.2
147.5°	422.1	440.1	457.2	471.8	485.5	495.5	500.4	502.2
150°	416.3	431.6	444.8	457.5	468.2	476.9	479.9	480.9
152.5°	410.6	424.4	436.5	446.2	455.1	461.8	464.7	465.4
155°	402.3	413.5	423.2	430.9	437.8	442.7	444.8	445.5
157.5°	394.0	403.1	410.6	416.7	422.1	426.1	428.1	427.9
160°	388.3	395.3	402.3	407.2	412.1	415.5	417.0	416.3
162.5°	382.2	388.6	394.5	398.8	402.6	405.5	405.8	405.6
165°	373.7	378.6	382.8	386.3	389.1	390.5	390.5	390.5
167.5°	365.6	368.8	372.0	374.5	375.9	377.2	376.7	376.5
170°	361.1	363.3	365.3	366.8	368.1	368.8	368.8	368.1
172.5°	356.1	358.2	359.8	360.6	360.9	362.1	361.1	360.3
175°	350.7	350.7	352.1	352.1	352.1	352.8	351.4	350.7
177.5°	347.0	347.5	347.5	347.5	347.0	347.5	345.8	345.8
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8

(END OF REPORT)