

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: P333273-830

Luminaire Tested: **S125DIP-S1090D810U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333273-830
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-S1090D810U830-4F0-1E-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: 6763.0 lumens
Efficiency: N/A
Efficacy: 124.3 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

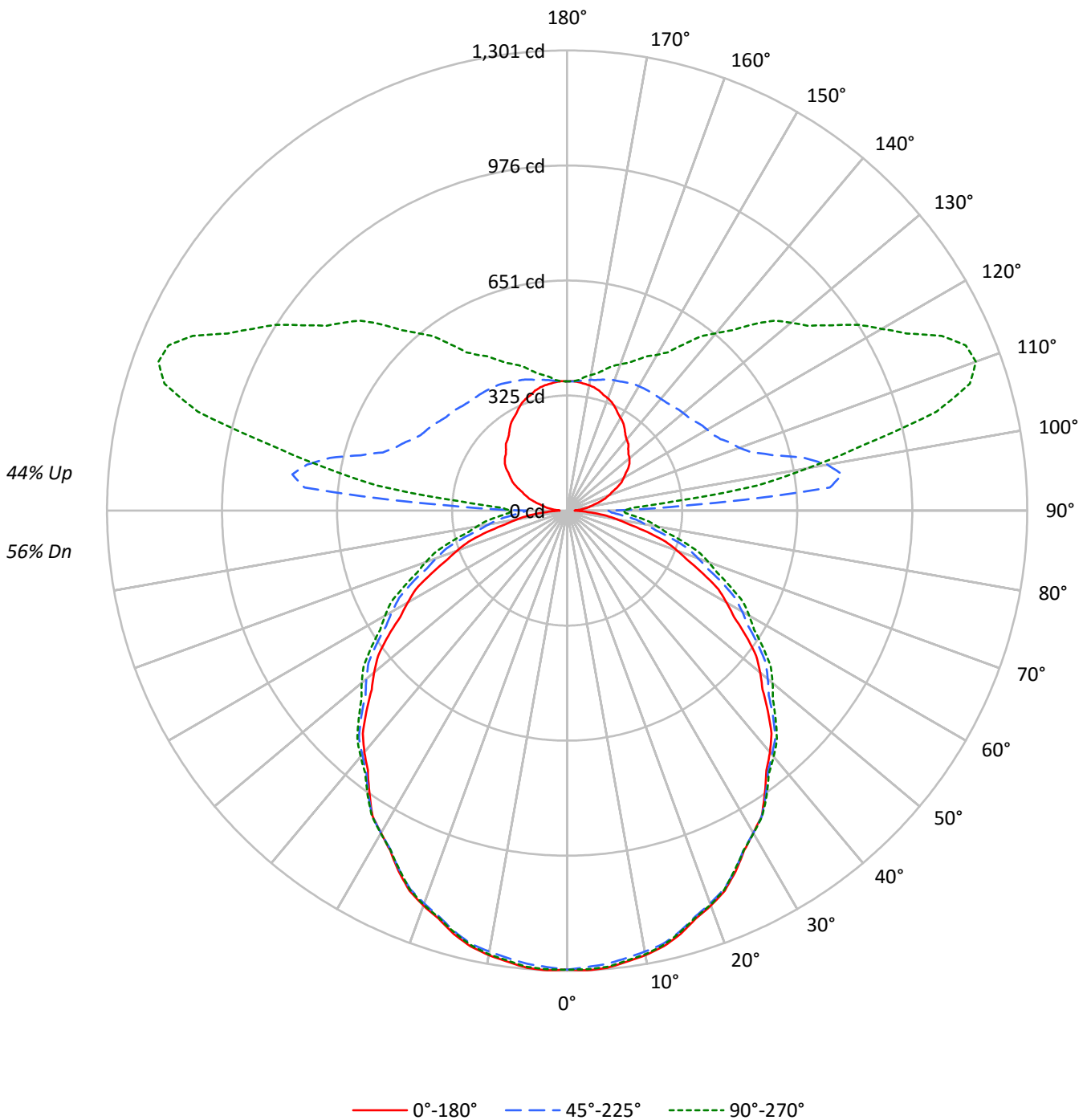
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	1.8
10°-20°	348.4	5.2
20°-30°	518.1	7.7
30°-40°	613.7	9.1
40°-50°	634.5	9.4
50°-60°	584.5	8.6
60°-70°	472.5	7.0
70°-80°	316.4	4.7
80°-90°	166.1	2.5
90°-100°	357.0	5.3
100°-110°	637.5	9.4
110°-120°	580.0	8.6
120°-130°	459.0	6.8
130°-140°	358.9	5.3
140°-150°	264.6	3.9
150°-160°	184.7	2.7
160°-170°	108.8	1.6
170°-180°	35.4	0.5
0°-30°	989.2	14.6
0°-40°	1602.9	23.7
0°-60°	2821.9	41.7
0°-90°	3777.0	55.8
90°-120°	1574.5	23.3
90°-150°	2657.1	39.3
90°-180°	2986.0	44.2
0°-180°	6763.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	21	68	116	148	160	15
95°	41	122	746	416	303	39
105°	95	149	604	1147	1081	100
115°	156	197	478	996	1168	154
125°	211	247	440	784	913	187
135°	244	293	418	643	745	190
145°	283	322	410	517	573	177
155°	321	346	399	451	471	148
165°	351	360	383	406	413	99
175°	365	365	368	372	371	35
180°	366	366	366	366	366	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	39.9	49.0	58.3	67.8	77.1	86.7	96.4	106.3	116.1	126.0	132.7
90°	21.1	30.9	41.4	51.9	62.5	73.2	83.6	94.7	105.0	116.1	123.4
92.5°	27.3	37.6	48.1	59.7	71.7	84.3	97.4	111.0	125.1	139.7	149.9
95°	40.9	48.9	57.7	67.7	78.7	90.7	103.7	117.7	132.7	148.7	160.7
97.5°	55.4	62.9	71.6	81.4	92.4	104.4	117.4	131.4	146.4	162.4	174.4
100°	65.6	73.0	81.9	91.0	101.0	112.0	124.0	137.0	151.0	166.0	178.0
102.5°	76.9	83.3	91.1	100.4	111.4	123.4	136.4	150.4	165.4	181.4	194.4
105°	94.7	99.2	107.4	117.3	128.3	140.3	153.3	167.3	182.3	198.3	211.3
107.5°	112.1	117.3	124.8	134.7	145.7	157.7	170.7	184.7	199.7	215.7	228.7
110°	124.6	129.5	135.8	143.8	153.8	164.8	176.8	189.8	203.8	218.8	231.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	138.2	142.3	147.4	156.7	170.5	194.4	231.0	286.6	375.2	500.0	645.7
115°	156.5	159.9	164.2	172.8	185.8	208.9	243.5	293.6	371.7	478.5	602.3
117.5°	173.0	176.4	180.1	188.0	201.9	223.9	256.6	302.5	370.9	465.0	573.6
120°	184.7	187.8	191.5	199.1	212.4	234.5	266.8	308.7	371.9	457.3	557.1
122.5°	196.0	198.1	200.9	207.8	222.0	243.7	275.8	315.7	372.2	450.3	542.2
125°	211.4	212.6	216.0	222.3	236.1	258.0	287.9	325.3	373.6	440.5	521.7
127.5°	222.4	224.3	228.8	236.9	251.5	272.9	300.9	334.7	376.6	432.9	502.2
130°	230.1	232.0	237.6	246.9	262.1	283.1	309.9	341.9	379.0	428.7	490.1
132.5°	235.0	237.7	244.7	255.4	271.5	292.1	318.0	347.2	381.2	424.5	478.9
135°	244.3	246.9	255.5	267.0	282.2	302.9	327.8	354.1	383.3	418.5	464.1
137.5°	256.1	258.1	266.1	277.7	292.7	313.5	335.3	359.5	386.3	414.7	451.7
140°	262.1	264.4	273.2	285.0	299.0	319.1	340.7	363.1	386.9	412.3	444.9
142.5°	270.4	271.8	279.8	291.4	304.6	323.2	343.5	364.5	386.9	410.9	439.4
145°	282.8	284.0	291.1	301.1	314.1	330.9	350.1	368.4	388.4	409.7	433.3
147.5°	294.5	295.4	301.7	311.3	322.8	337.7	354.5	371.2	389.1	407.8	427.7
150°	302.2	303.6	308.8	318.4	328.7	341.2	357.4	372.9	389.1	406.0	423.8
152.5°	310.4	311.3	315.8	324.2	334.0	345.3	360.3	374.1	388.5	403.7	419.6
155°	321.3	321.3	325.7	333.1	340.4	350.8	363.4	375.1	386.9	399.4	412.7
157.5°	331.0	330.9	334.4	340.7	347.2	355.1	365.8	375.9	385.0	395.0	406.2
160°	337.5	336.8	339.8	344.9	350.8	357.4	367.0	375.9	383.2	392.1	401.0
162.5°	342.8	342.1	345.1	349.6	354.3	359.8	368.2	375.2	381.4	388.5	396.2
165°	350.8	349.3	351.6	355.2	358.2	362.6	368.4	374.4	378.8	383.2	389.1
167.5°	356.1	355.3	356.7	358.7	360.8	363.6	368.4	372.6	374.7	378.1	382.2
170°	359.7	358.9	359.7	361.1	362.6	364.8	368.4	371.5	372.9	375.1	378.1
172.5°	362.0	360.7	361.4	362.9	363.7	364.8	367.9	370.2	370.5	371.6	373.9
175°	364.8	363.4	364.1	364.8	364.8	364.8	367.0	368.4	367.8	367.8	368.4
177.5°	366.1	365.0	365.0	365.5	365.0	365.0	366.1	366.7	365.5	365.5	366.1
180°	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	139.3	146.0	152.6	157.2	159.2	161.2	163.2	165.2
90°	130.6	137.9	145.1	150.8	152.8	154.8	157.5	159.5
92.5°	243.4	213.9	196.7	189.9	182.5	182.7	183.6	184.5
95°	635.2	529.4	445.0	387.2	336.9	316.7	312.8	302.9
97.5°	887.5	814.9	732.5	650.4	606.8	567.4	548.0	540.5
100°	999.8	969.6	899.7	826.8	777.7	726.3	700.7	690.6
102.5°	1034.7	1062.7	1032.0	983.8	931.1	895.1	867.2	860.1
105°	1004.0	1110.6	1148.7	1144.4	1122.8	1100.4	1087.7	1080.8
107.5°	914.6	1055.0	1143.8	1186.0	1199.7	1201.3	1198.2	1194.0
110°	848.8	994.2	1103.4	1169.8	1204.9	1220.9	1228.0	1230.0



TEST NUMBER: P333273-830

CATALOG NUMBER: S125DIP-S1090D810U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	795.9	934.0	1044.2	1121.6	1172.1	1198.2	1213.0	1220.2
115°	729.0	848.3	954.3	1038.0	1097.2	1134.3	1156.7	1167.9
117.5°	683.1	786.4	878.2	955.2	1014.6	1053.1	1075.4	1083.3
120°	657.8	751.0	836.9	905.0	961.2	998.3	1019.9	1027.5
122.5°	637.3	723.9	800.7	864.6	914.9	949.0	970.6	977.6
125°	608.0	687.7	756.3	812.4	855.1	886.6	904.3	913.0
127.5°	577.9	652.2	716.2	768.8	807.9	836.2	853.2	858.1
130°	559.6	628.5	689.8	740.5	778.7	804.5	820.6	826.4
132.5°	540.8	605.5	661.7	710.3	748.4	773.9	788.6	794.8
135°	515.0	569.5	620.4	664.9	698.7	724.4	739.1	745.0
137.5°	493.5	538.0	580.5	618.4	648.6	671.8	685.2	691.2
140°	481.2	518.9	555.9	589.0	617.4	637.7	649.9	654.7
142.5°	470.5	502.6	534.4	563.1	587.4	604.7	616.3	620.6
145°	457.5	481.8	506.1	527.3	546.0	559.7	568.9	573.1
147.5°	446.2	465.2	483.2	498.7	513.2	523.8	529.0	530.8
150°	440.0	456.2	470.1	483.6	494.9	504.1	507.3	508.3
152.5°	434.0	448.6	461.4	471.6	481.1	488.1	491.2	491.9
155°	425.3	437.1	447.3	455.4	462.8	468.0	470.1	470.9
157.5°	416.4	426.1	434.0	440.5	446.2	450.4	452.5	452.3
160°	410.5	417.8	425.3	430.4	435.5	439.2	440.7	440.0
162.5°	404.0	410.8	417.0	421.5	425.6	428.6	429.0	428.8
165°	395.0	400.2	404.6	408.3	411.2	412.7	412.7	412.7
167.5°	386.4	389.8	393.2	395.9	397.4	398.7	398.1	397.9
170°	381.7	384.0	386.2	387.7	389.1	389.8	389.8	389.1
172.5°	376.5	378.6	380.3	381.2	381.4	382.8	381.6	380.9
175°	370.7	370.7	372.2	372.2	372.2	372.9	371.5	370.7
177.5°	366.7	367.3	367.3	367.3	366.7	367.3	365.5	365.5
180°	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5

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