

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: P333272-840

Luminaire Tested: **S125DIP-S1090D810U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333272-840
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-S1090D810U840-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7140.7 lumens
Efficiency: N/A
Efficacy: 131.3 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

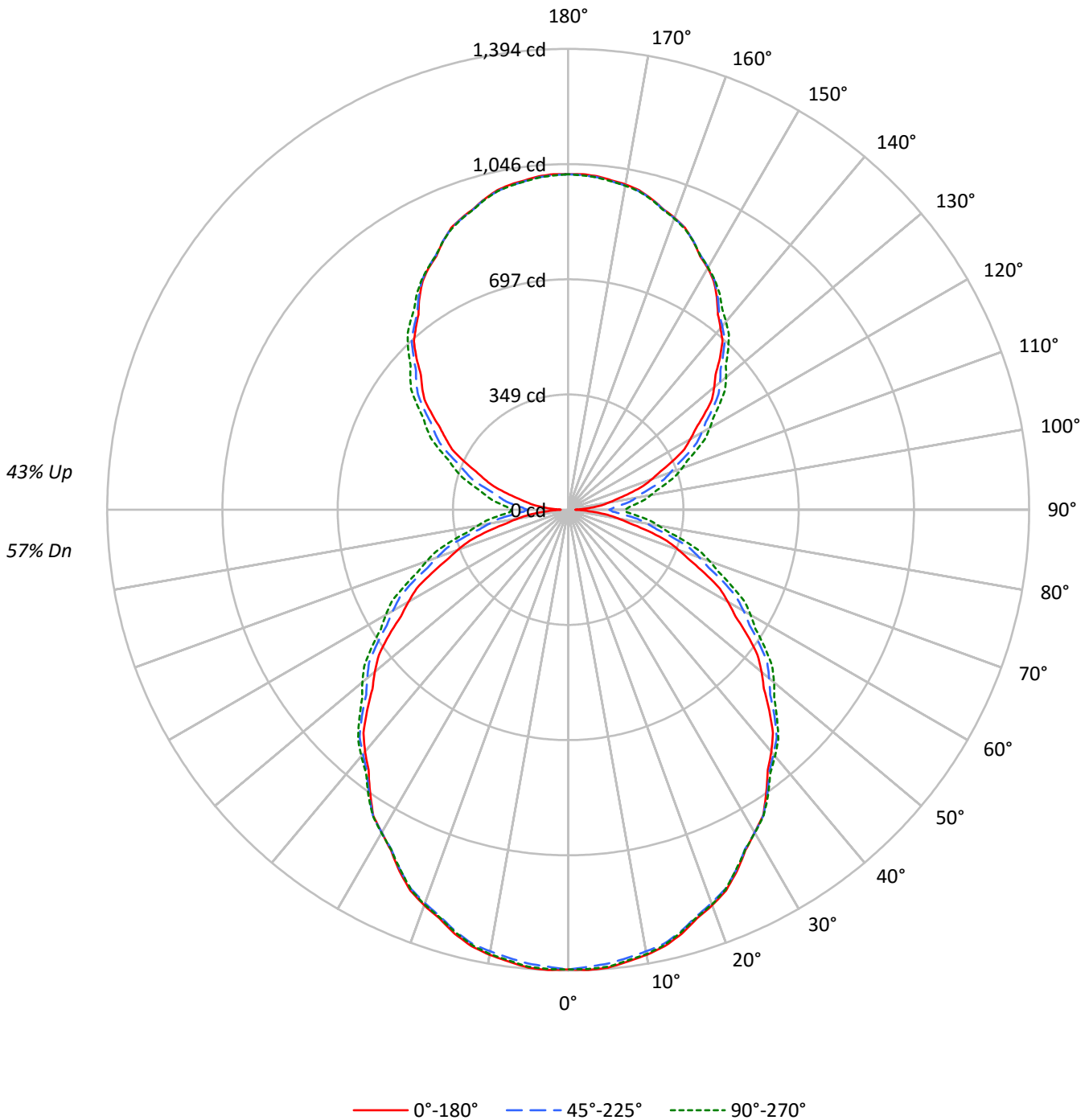
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	62	62	62	57																				
1	98	94	89	86	91	87	84	80	75	72	70	64	62	60	54	52	51	46																				
2	89	81	75	69	83	76	70	65	65	61	57	56	52	50	47	44	42	38																				
3	81	71	63	57	75	66	60	54	57	52	48	49	45	42	41	38	36	32																				
4	74	63	55	48	69	59	51	46	51	45	40	43	39	35	37	33	30	27																				
5	68	56	48	41	63	52	45	39	45	39	35	39	34	31	33	29	26	23																				
6	63	50	42	36	58	47	39	34	41	35	30	35	30	27	30	26	23	20																				
7	58	45	37	31	54	42	35	30	37	31	27	32	27	24	27	23	21	18																				
8	54	41	33	28	50	39	31	26	34	28	24	29	24	21	25	21	18	16																				
9	50	38	30	25	47	35	28	23	31	25	21	27	22	19	23	19	17	14																				
10	47	34	27	22	44	32	26	21	29	23	19	25	20	17	21	18	15	13																				

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	1.8
10°-20°	373.3	5.2
20°-30°	555.1	7.8
30°-40°	657.5	9.2
40°-50°	679.8	9.5
50°-60°	626.3	8.8
60°-70°	506.2	7.1
70°-80°	339.0	4.7
80°-90°	178.0	2.5
90°-100°	166.6	2.3
100°-110°	273.4	3.8
110°-120°	388.7	5.4
120°-130°	475.1	6.7
130°-140°	513.4	7.2
140°-150°	493.8	6.9
150°-160°	412.7	5.8
160°-170°	274.3	3.8
170°-180°	96.0	1.3
0°-30°	1059.9	14.8
0°-40°	1717.4	24.1
0°-60°	3023.5	42.3
0°-90°	4046.8	56.7
90°-120°	828.7	11.6
90°-150°	2310.9	32.4
90°-180°	3094.0	43.3
0°-180°	7140.7	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°	23	73	124	158	172	17
95°	69	107	160	194	207	69
105°	192	219	264	295	308	205
115°	348	363	398	421	429	345
125°	502	507	534	553	560	449
135°	649	652	662	679	684	500
145°	784	786	788	795	798	490
155°	895	895	896	899	895	412
165°	974	972	973	976	971	275
175°	1012	1009	1009	1013	1008	96
180°	1015	1015	1015	1015	1015	



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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°	42.7	52.7	62.6	72.6	82.6	92.8	103.4	113.9	124.5	135.0	142.2
90°	22.6	33.7	44.8	55.9	67.0	78.3	89.9	101.4	112.9	124.4	132.3
92.5°	38.8	48.7	58.7	68.6	78.6	89.6	101.6	113.6	125.7	137.7	145.6
95°	69.1	77.3	85.5	93.7	102.0	112.1	124.1	136.2	148.2	160.4	168.2
97.5°	101.4	108.6	115.8	123.1	130.3	140.1	152.5	164.8	177.1	189.6	197.0
100°	125.5	131.9	138.3	144.6	151.0	160.2	172.2	184.1	196.1	208.0	216.0
102.5°	151.6	158.2	164.8	171.4	177.9	186.5	197.1	207.7	218.3	228.9	236.8
105°	192.3	198.0	203.8	209.4	215.2	223.2	233.3	243.5	253.6	263.7	270.8
107.5°	237.4	242.5	247.4	252.5	257.4	264.7	274.2	283.8	293.3	302.9	309.3
110°	268.5	273.1	277.6	282.1	286.6	293.4	302.4	311.3	320.4	329.4	335.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	301.4	304.8	308.1	311.5	314.9	321.0	329.9	338.8	347.7	356.6	362.3
115°	348.5	351.3	354.2	357.0	359.8	365.4	373.5	381.8	390.0	398.3	403.5
117.5°	395.8	397.5	399.2	400.9	402.6	407.4	415.2	422.9	430.7	438.5	443.7
120°	426.2	427.9	429.7	431.5	433.2	437.8	444.8	452.0	459.2	466.4	471.5
122.5°	457.9	458.6	459.4	460.1	460.8	464.8	472.0	479.2	486.4	493.5	498.3
125°	502.1	502.9	503.6	504.4	505.1	508.7	514.9	521.1	527.4	533.6	538.1
127.5°	548.2	548.5	548.8	549.1	549.4	552.1	557.2	562.4	567.6	572.8	577.1
130°	576.6	577.1	577.7	578.3	578.9	581.5	586.0	590.7	595.2	599.9	603.9
132.5°	603.9	605.3	606.7	608.0	609.5	611.8	614.9	618.1	621.4	624.5	628.6
135°	648.6	649.4	650.2	651.0	651.7	653.2	655.5	657.8	660.0	662.4	666.3
137.5°	690.7	691.5	692.3	693.1	693.9	694.9	696.3	697.7	699.1	700.5	704.4
140°	716.8	717.7	718.5	719.4	720.3	721.1	722.0	722.9	723.7	724.5	728.2
142.5°	744.0	744.5	745.0	745.5	746.0	746.6	747.3	748.0	748.7	749.4	752.6
145°	784.0	784.4	784.8	785.2	785.5	786.0	786.5	787.0	787.6	788.1	789.6
147.5°	819.5	819.9	820.3	820.7	821.0	821.4	821.9	822.3	822.7	823.1	824.0
150°	844.1	843.9	843.8	843.6	843.4	843.7	844.4	845.2	845.9	846.6	846.6
152.5°	864.3	864.6	864.8	865.2	865.4	865.7	865.9	866.2	866.5	866.8	867.2
155°	895.4	895.4	895.4	895.4	895.4	895.5	895.8	896.0	896.1	896.3	897.0
157.5°	923.3	922.9	922.5	922.1	921.7	921.6	921.8	922.0	922.1	922.3	923.0
160°	939.7	939.2	938.7	938.2	937.6	937.5	937.6	937.8	938.0	938.2	938.9
162.5°	954.2	953.8	953.4	953.1	952.7	952.5	952.5	952.6	952.6	952.7	953.5
165°	973.7	973.3	973.0	972.6	972.3	972.2	972.3	972.5	972.7	972.9	973.6
167.5°	990.1	989.4	988.7	988.0	987.2	986.9	986.9	986.9	986.9	986.9	988.0
170°	999.0	998.3	997.5	996.8	996.1	995.7	995.7	995.7	995.7	995.7	996.8
172.5°	1005.2	1004.5	1003.8	1003.1	1002.4	1002.1	1002.1	1002.1	1002.1	1002.1	1003.1
175°	1012.4	1011.7	1011.0	1010.3	1009.6	1009.2	1009.2	1009.2	1009.2	1009.2	1010.3
177.5°	1016.0	1015.4	1014.9	1014.3	1013.7	1013.4	1013.3	1013.1	1013.0	1012.8	1013.7
180°	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7



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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°	149.4	156.4	163.6	168.3	170.6	172.8	175.0	177.2
90°	140.1	147.9	155.8	161.1	163.7	166.3	169.0	171.7
92.5°	153.5	161.4	169.3	174.5	177.0	179.5	182.0	184.5
95°	176.1	184.0	191.9	197.1	199.5	202.0	204.5	206.9
97.5°	204.6	212.1	219.6	224.5	226.7	229.0	231.3	233.6
100°	224.0	231.9	239.8	244.9	247.0	249.2	251.4	253.6
102.5°	244.7	252.5	260.3	265.4	267.7	270.0	272.4	274.7
105°	277.9	285.1	292.2	297.0	299.7	302.4	305.0	307.6
107.5°	315.9	322.3	328.9	333.1	335.0	336.8	338.6	340.4
110°	341.9	348.2	354.6	358.6	360.6	362.5	364.5	366.4



TEST NUMBER: P333272-840

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	368.1	374.0	379.7	383.4	385.3	387.1	388.9	390.6
115°	408.8	414.0	419.4	422.8	424.4	426.1	427.8	429.4
117.5°	449.1	454.3	459.6	462.9	464.3	465.6	467.1	468.4
120°	476.7	481.8	487.0	490.1	491.2	492.3	493.4	494.5
122.5°	503.1	507.9	512.6	515.6	516.8	518.2	519.4	520.7
125°	542.6	547.0	551.6	554.5	555.8	557.1	558.5	559.9
127.5°	581.4	585.7	590.1	592.9	594.3	595.7	597.1	598.5
130°	607.9	612.1	616.1	618.7	619.9	621.1	622.2	623.4
132.5°	632.7	636.7	640.9	643.3	644.0	644.8	645.6	646.3
135°	670.2	674.2	678.1	680.5	681.4	682.2	683.0	683.8
137.5°	708.1	712.0	715.7	717.8	718.1	718.4	718.8	719.1
140°	731.8	735.5	739.2	741.2	741.5	741.8	742.3	742.6
142.5°	755.6	758.6	761.7	763.4	763.8	764.1	764.4	764.8
145°	791.1	792.6	794.2	795.3	796.0	796.6	797.3	798.0
147.5°	825.0	825.9	826.8	826.9	826.3	825.6	825.0	824.4
150°	846.6	846.6	846.6	846.5	846.5	846.4	846.4	846.3
152.5°	867.6	868.0	868.4	868.4	867.8	867.2	866.7	866.1
155°	897.7	898.4	899.1	899.0	898.1	897.3	896.4	895.4
157.5°	923.7	924.4	925.1	924.9	923.7	922.6	921.4	920.3
160°	939.6	940.2	940.9	940.9	940.0	939.1	938.2	937.4
162.5°	954.3	955.2	956.0	955.9	954.9	953.9	952.9	951.9
165°	974.3	975.0	975.6	975.5	974.4	973.4	972.3	971.3
167.5°	989.1	990.1	991.2	991.1	990.1	989.0	987.8	986.7
170°	997.8	999.0	1000.0	999.9	998.7	997.4	996.2	995.0
172.5°	1004.2	1005.2	1006.3	1006.3	1005.2	1004.1	1003.0	1001.9
175°	1011.3	1012.4	1013.4	1013.3	1012.1	1010.9	1009.7	1008.5
177.5°	1014.5	1015.3	1016.2	1016.1	1015.1	1014.2	1013.2	1012.2
180°	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7	1014.7

(END OF REPORT)