

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: P332586-840

Luminaire Tested: **SA4XXDIP-C795D365U840-4F0-1E-UDD-F**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332586-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C795D365U840-4F0-1E-UDD-F  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4917.5 lumens  
Efficiency: N/A  
Efficacy: 140.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Direct

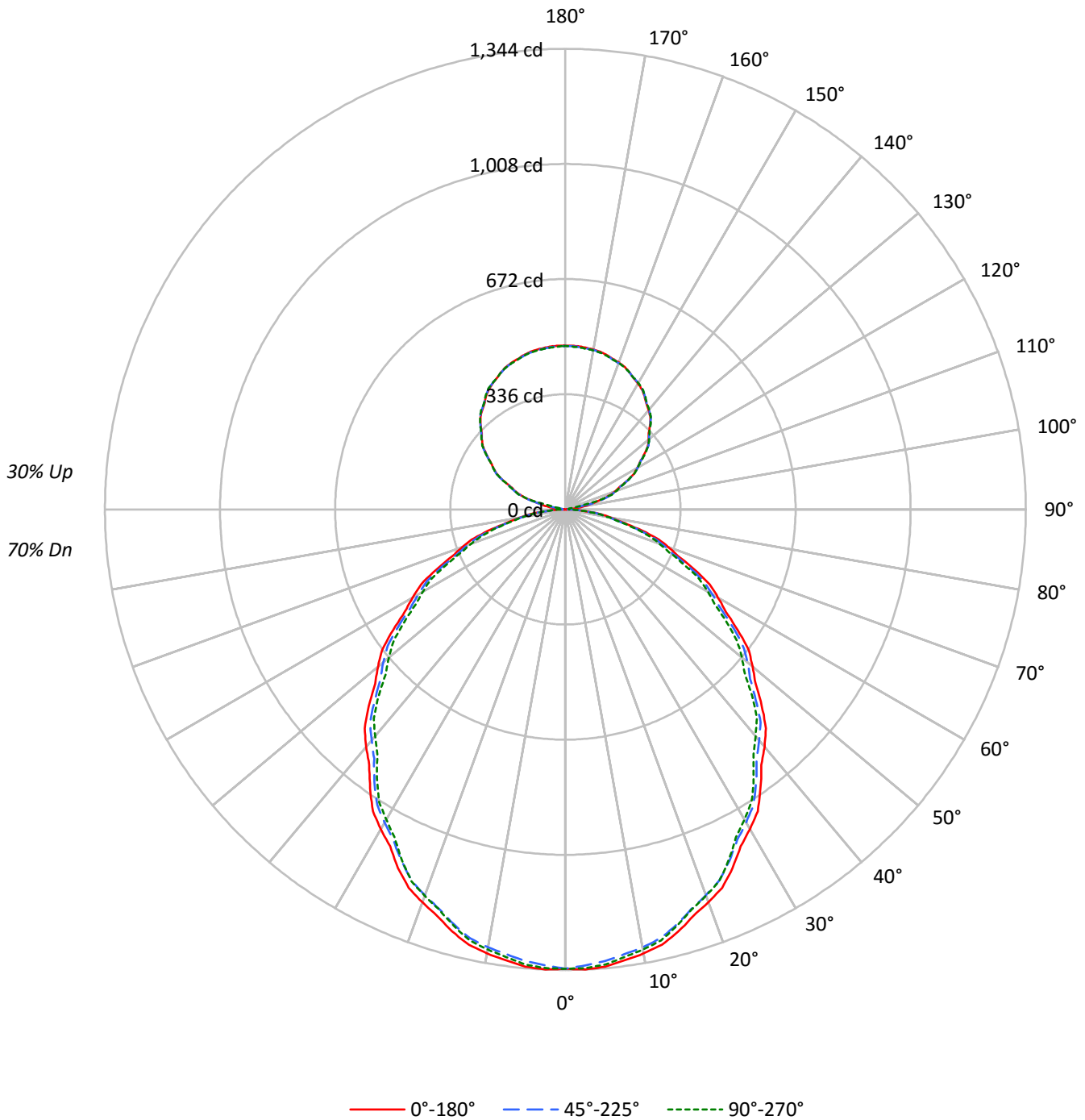
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332586-840

CATALOG NUMBER: SA4XXDIP-C795D365U840-4F0-1E-UDD-F

### Luminous Intensity Polar Plot





TEST NUMBER: P332586-840

CATALOG NUMBER: SA4XXDIP-C795D365U840-4F0-1E-UDD-F

**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	50	30	10	0	
RCR																						
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70				
1	102	98	94	90	96	93	89	86	83	80	78	74	72	70	66	64	63	59				
2	93	85	79	74	88	81	75	70	73	68	64	65	62	58	58	55	53	49				
3	85	75	67	61	80	71	64	59	64	59	54	57	53	49	51	48	45	42				
4	78	67	58	52	73	63	56	50	57	51	46	51	46	42	46	42	39	36				
5	72	59	51	45	67	57	49	43	51	45	40	46	41	37	41	37	34	31				
6	66	53	45	39	62	51	43	38	46	40	35	42	36	32	38	33	30	27				
7	61	48	40	34	58	46	39	33	42	36	31	38	33	29	34	30	27	24				
8	57	44	36	31	54	42	35	30	38	32	28	35	30	26	32	27	24	22				
9	53	40	33	27	50	39	31	26	35	29	25	32	27	23	29	25	22	20				
10	50	37	30	25	47	36	29	24	33	27	22	30	25	21	27	23	20	18				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10823	10823	10823
5°	10855	10724	10802
10°	10787	10637	10690
15°	10657	10486	10513
20°	10483	10299	10308
25°	10286	10085	10056
30°	10043	9833	9743
35°	9792	9570	9443
40°	9531	9271	9101
45°	9259	8977	8805
50°	8959	8715	8446
55°	8633	8376	8103
60°	8307	7995	7753
65°	7941	7633	7324
70°	7530	7152	6871
75°	6903	6569	6400
80°	6141	5890	5742
85°	5372	5169	5067



TEST NUMBER: P332586-840

CATALOG NUMBER: SA4XXDIP-C795D365U840-4F0-1E-UDD-F

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.2	2.6
10°-20°	355.7	7.2
20°-30°	523.5	10.6
30°-40°	608.6	12.4
40°-50°	608.7	12.4
50°-60°	532.4	10.8
60°-70°	395.4	8.0
70°-80°	224.6	4.6
80°-90°	66.2	1.3
90°-100°	16.3	0.3
100°-110°	104.1	2.1
110°-120°	199.1	4.0
120°-130°	252.7	5.1
130°-140°	270.4	5.5
140°-150°	252.8	5.1
150°-160°	203.9	4.1
160°-170°	131.5	2.7
170°-180°	45.3	0.9
0°-30°	1005.5	20.4
0°-40°	1614.1	32.8
0°-60°	2755.2	56.0
0°-90°	3441.4	70.0
90°-120°	319.5	6.5
90°-150°	1095.3	22.3
90°-180°	1476.0	30.0
0°-180°	4917.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1341	1341	1341	1341	1341	
5°	1340	1335	1323	1334	1333	127
15°	1275	1270	1255	1260	1258	359
25°	1155	1147	1132	1133	1129	531
35°	994	986	971	964	958	621
45°	811	803	786	775	771	625
55°	613	609	595	583	576	549
65°	416	410	400	389	383	411
75°	221	216	211	206	205	235
85°	58	58	56	56	55	64
90°	1	5	8	10	11	4
95°	20	8	8	10	10	25
105°	107	110	111	114	102	112
115°	201	202	201	202	202	197
125°	282	283	283	284	284	252
135°	350	349	351	352	352	269
145°	403	404	404	405	406	252
155°	442	442	442	443	442	204
165°	466	465	465	467	464	132
175°	477	475	475	478	474	45
180°	477	477	477	477	477	



TEST NUMBER: P332586-840

CATALOG NUMBER: SA4XXDIP-C795D365U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6
2.5°	1344.0	1343.4	1342.8	1342.3	1341.7	1340.4	1338.3	1336.2	1334.0	1332.0	1333.8
5°	1339.5	1338.6	1337.6	1336.7	1335.6	1333.8	1331.2	1328.6	1326.0	1323.3	1326.0
7.5°	1327.1	1326.1	1325.1	1324.1	1323.2	1321.3	1318.4	1315.5	1312.5	1309.6	1311.7
10°	1315.9	1314.9	1313.9	1313.0	1312.0	1310.0	1306.9	1303.8	1300.7	1297.6	1299.5
12.5°	1301.2	1300.3	1299.3	1298.4	1297.5	1295.3	1292.0	1288.7	1285.5	1282.1	1284.2
15°	1275.1	1274.0	1273.1	1272.1	1271.2	1269.0	1265.4	1261.8	1258.2	1254.7	1256.1
17.5°	1243.4	1242.2	1241.0	1239.9	1238.7	1236.4	1233.0	1229.6	1226.2	1222.8	1223.8
20°	1220.2	1219.0	1217.9	1216.7	1215.5	1213.0	1209.5	1205.9	1202.3	1198.8	1199.5
22.5°	1195.4	1193.8	1192.1	1190.6	1189.0	1186.5	1182.9	1179.3	1175.7	1172.2	1173.5
25°	1154.7	1153.1	1151.3	1149.7	1148.0	1145.5	1142.2	1138.8	1135.5	1132.2	1132.4
27.5°	1108.3	1106.6	1104.9	1103.2	1101.5	1099.0	1095.9	1092.9	1089.7	1086.6	1086.0
30°	1077.4	1075.5	1073.6	1071.7	1069.8	1067.2	1064.1	1061.1	1057.9	1054.8	1053.9
32.5°	1044.7	1043.0	1041.3	1039.6	1037.8	1035.3	1032.1	1028.7	1025.5	1022.2	1021.1
35°	993.6	991.9	990.3	988.6	986.9	984.4	981.1	977.8	974.4	971.1	969.4
37.5°	939.7	938.2	936.6	935.1	933.5	931.0	927.5	923.8	920.3	916.7	914.8
40°	904.4	902.5	900.6	898.7	896.8	894.0	890.5	886.9	883.3	879.7	877.4
42.5°	866.7	865.5	864.3	863.2	862.0	859.5	855.6	851.6	847.6	843.6	840.9
45°	811.0	809.3	807.7	806.0	804.4	801.5	797.8	794.0	790.1	786.3	783.7
47.5°	752.8	751.6	750.5	749.3	748.2	745.9	742.4	738.8	735.3	731.7	728.7
50°	713.3	712.3	711.3	710.3	709.4	707.3	704.0	700.6	697.2	693.9	690.5
52.5°	674.6	673.5	672.3	671.2	669.9	667.6	664.1	660.6	657.0	653.5	650.6
55°	613.4	612.6	611.9	611.2	610.5	608.4	605.1	601.8	598.4	595.1	592.2
57.5°	554.9	554.1	553.3	552.5	551.7	549.6	546.3	543.0	539.8	536.4	533.7
60°	514.5	513.3	512.1	511.0	509.8	507.6	504.5	501.4	498.3	495.2	493.0
62.5°	475.0	474.0	473.0	472.0	471.0	468.9	465.5	462.2	459.0	455.7	453.7
65°	415.7	414.5	413.3	412.1	410.9	409.1	406.8	404.3	401.9	399.6	397.2
67.5°	356.0	354.9	353.8	352.6	351.6	349.9	347.6	345.3	343.1	340.7	338.4
70°	319.0	317.4	315.7	314.0	312.4	310.5	308.6	306.7	304.8	303.0	301.0
72.5°	279.5	277.8	276.2	274.5	272.8	271.2	269.7	268.1	266.6	265.1	263.6
75°	221.3	220.0	218.9	217.7	216.5	215.3	214.1	212.9	211.8	210.6	209.5
77.5°	165.6	165.1	164.6	164.1	163.5	162.8	161.7	160.7	159.6	158.5	158.2
80°	132.1	131.4	130.7	130.0	129.3	128.7	128.2	127.7	127.2	126.7	126.2
82.5°	99.5	99.2	98.8	98.5	98.2	98.0	97.9	97.8	97.7	97.6	97.3
85°	58.0	58.0	58.0	58.0	58.0	57.8	57.3	56.9	56.4	55.8	55.8
87.5°	22.5	22.5	22.5	22.5	22.5	22.4	22.4	22.3	22.2	22.2	22.3
90°	1.1	1.9	2.8	3.7	4.5	5.4	6.0	6.6	7.2	7.9	8.3
92.5°	4.5	4.5	4.5	4.6	4.6	5.0	5.7	6.3	7.0	7.6	8.1
95°	19.6	17.0	14.2	11.5	8.9	7.6	7.6	7.7	7.8	7.9	8.3
97.5°	41.7	43.3	45.0	46.8	48.4	44.8	36.0	27.2	18.3	9.4	9.5
100°	58.6	60.0	61.4	62.8	64.2	59.5	48.6	37.6	26.7	15.8	14.3
102.5°	77.4	78.5	79.5	80.5	81.6	81.4	80.0	78.6	77.1	75.6	61.1
105°	107.4	107.9	108.4	108.9	109.4	109.8	110.2	110.6	111.0	111.4	112.1
107.5°	135.3	135.5	135.8	136.0	136.3	136.6	137.2	137.7	138.3	138.9	139.2
110°	154.2	154.4	154.6	154.9	155.1	155.5	155.9	156.4	156.9	157.4	157.5



TEST NUMBER: P332586-840

CATALOG NUMBER: SA4XXDIP-C795D365U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	172.5	172.9	173.3	173.7	174.2	174.5	174.7	174.9	175.1	175.4	175.3
115°	200.6	200.9	201.1	201.3	201.6	201.6	201.6	201.5	201.4	201.3	201.5
117.5°	225.9	226.2	226.5	226.9	227.2	227.4	227.6	227.8	227.9	228.1	228.1
120°	243.1	243.4	243.7	244.0	244.3	244.4	244.4	244.3	244.2	244.1	244.3
122.5°	259.0	259.2	259.4	259.6	259.8	259.9	260.0	260.1	260.2	260.4	260.4
125°	282.0	282.3	282.6	282.9	283.3	283.3	283.2	283.0	282.9	282.7	282.9
127.5°	303.7	303.8	303.8	303.9	304.0	304.2	304.6	304.9	305.3	305.7	305.6
130°	317.6	317.7	317.8	317.9	318.0	318.1	318.3	318.6	318.8	319.1	319.1
132.5°	330.5	330.6	330.7	330.9	331.0	331.2	331.5	331.8	332.1	332.4	332.5
135°	349.7	349.7	349.6	349.5	349.4	349.5	349.9	350.2	350.5	350.8	351.0
137.5°	366.8	366.9	366.9	366.9	367.0	367.2	367.5	367.8	368.2	368.5	368.7
140°	378.0	378.1	378.3	378.4	378.6	378.7	378.9	379.1	379.2	379.4	379.6
142.5°	388.0	388.2	388.5	388.8	389.1	389.3	389.4	389.5	389.6	389.7	389.8
145°	403.3	403.5	403.7	404.0	404.2	404.3	404.3	404.3	404.3	404.3	404.5
147.5°	415.5	416.0	416.4	416.9	417.3	417.5	417.4	417.3	417.2	417.2	417.2
150°	424.3	424.6	425.0	425.4	425.7	425.8	425.7	425.6	425.5	425.5	425.5
152.5°	431.8	432.0	432.3	432.5	432.8	432.8	432.7	432.5	432.4	432.3	432.4
155°	442.2	442.3	442.3	442.4	442.5	442.4	442.2	441.9	441.7	441.5	441.8
157.5°	451.0	450.9	450.9	450.8	450.8	450.6	450.4	450.1	449.8	449.6	450.0
160°	456.2	455.9	455.7	455.4	455.1	455.0	454.9	454.8	454.7	454.6	455.1
162.5°	460.7	460.4	460.1	459.8	459.5	459.3	459.2	459.1	459.1	459.0	459.5
165°	466.5	466.1	465.6	465.2	464.8	464.6	464.6	464.6	464.6	464.6	465.3
167.5°	471.0	470.6	470.2	469.8	469.4	469.2	469.1	469.1	469.0	469.0	469.7
170°	473.6	473.1	472.6	472.2	471.7	471.5	471.6	471.7	471.7	471.8	472.4
172.5°	475.3	474.8	474.3	473.9	473.4	473.2	473.3	473.4	473.4	473.5	474.1
175°	477.2	476.7	476.3	475.7	475.2	475.0	475.1	475.2	475.3	475.3	476.2
177.5°	478.1	477.6	477.2	476.7	476.3	476.1	476.3	476.4	476.5	476.6	477.2
180°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2



TEST NUMBER: P332586-840

CATALOG NUMBER: SA4XXDIP-C795D365U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6	1340.6
2.5°	1335.7	1337.7	1339.6	1340.5	1340.3	1340.1	1339.9	1339.7
5°	1328.6	1331.2	1333.8	1334.9	1334.4	1334.0	1333.5	1333.0
7.5°	1313.8	1316.0	1318.0	1318.9	1318.7	1318.4	1318.1	1317.8
10°	1301.4	1303.3	1305.3	1306.0	1305.5	1304.9	1304.5	1304.0
12.5°	1286.4	1288.4	1290.5	1291.2	1290.6	1289.9	1289.2	1288.6
15°	1257.5	1258.9	1260.3	1260.7	1260.0	1259.3	1258.6	1257.9
17.5°	1224.7	1225.6	1226.5	1226.7	1226.2	1225.7	1225.3	1224.8
20°	1200.2	1200.9	1201.6	1201.7	1201.2	1200.8	1200.3	1199.8
22.5°	1174.7	1176.0	1177.3	1177.5	1176.6	1175.8	1174.9	1174.1
25°	1132.7	1132.9	1133.2	1132.8	1131.9	1130.8	1129.9	1128.9
27.5°	1085.5	1084.9	1084.3	1083.5	1082.3	1081.1	1079.8	1078.6
30°	1052.9	1052.0	1051.0	1050.0	1048.7	1047.5	1046.3	1045.2
32.5°	1019.9	1018.8	1017.6	1016.4	1015.2	1014.0	1012.8	1011.7
35°	967.8	966.0	964.3	962.9	961.7	960.6	959.4	958.2
37.5°	913.0	911.2	909.5	907.8	906.2	904.6	903.0	901.4
40°	874.9	872.6	870.2	868.4	867.2	866.1	864.8	863.6
42.5°	838.1	835.4	832.5	830.8	830.0	829.2	828.4	827.6
45°	781.0	778.4	775.8	774.2	773.4	772.6	771.9	771.2
47.5°	725.8	722.9	719.8	717.5	715.7	713.9	712.1	710.2
50°	687.2	683.9	680.5	678.1	676.7	675.3	673.9	672.5
52.5°	647.6	644.6	641.7	639.3	637.5	635.7	633.9	632.1
55°	589.4	586.5	583.6	581.5	580.1	578.7	577.1	575.7
57.5°	531.0	528.3	525.5	523.5	522.1	520.7	519.4	518.0
60°	490.9	488.8	486.6	484.9	483.7	482.5	481.3	480.2
62.5°	451.7	449.8	447.9	446.3	445.0	443.8	442.7	441.5
65°	394.9	392.4	390.0	388.3	387.1	385.9	384.7	383.4
67.5°	336.2	333.9	331.5	330.2	329.9	329.6	329.2	328.9
70°	299.1	297.2	295.3	294.0	293.3	292.6	291.9	291.1
72.5°	262.1	260.5	259.0	257.9	257.1	256.4	255.7	255.0
75°	208.6	207.6	206.7	206.1	205.9	205.6	205.4	205.2
77.5°	157.9	157.6	157.4	156.9	156.3	155.7	155.1	154.5
80°	125.8	125.3	124.8	124.5	124.2	124.0	123.8	123.5
82.5°	96.9	96.6	96.3	96.1	95.9	95.6	95.4	95.1
85°	55.8	55.8	55.8	55.7	55.5	55.2	55.0	54.7
87.5°	22.4	22.5	22.6	22.6	22.6	22.7	22.7	22.7
90°	8.8	9.3	9.8	10.1	10.2	10.4	10.5	10.7
92.5°	8.5	9.0	9.5	9.7	9.8	9.8	9.8	9.9
95°	8.8	9.3	9.8	10.0	10.1	10.2	10.3	10.3
97.5°	9.5	9.6	9.6	9.7	9.8	9.8	9.9	10.0
100°	13.0	11.6	10.3	9.7	9.8	9.8	9.9	10.0
102.5°	46.6	32.0	17.5	10.2	10.2	10.2	10.3	10.3
105°	112.8	113.5	114.2	113.1	110.3	107.4	104.5	101.7
107.5°	139.6	139.9	140.3	140.6	140.9	141.2	141.5	141.8
110°	157.7	157.8	158.0	158.2	158.4	158.8	159.0	159.2





TEST NUMBER: P332586-840

CATALOG NUMBER: SA4XXDIP-C795D365U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	175.3	175.3	175.2	175.4	175.7	176.0	176.3	176.6
115°	201.6	201.8	202.0	202.0	202.0	202.0	202.0	202.0
117.5°	228.0	228.0	228.0	227.9	227.9	227.9	227.9	227.8
120°	244.4	244.6	244.8	244.8	244.6	244.4	244.3	244.1
122.5°	260.5	260.6	260.7	260.7	260.5	260.4	260.2	260.1
125°	283.2	283.4	283.6	283.8	283.9	284.0	284.0	284.1
127.5°	305.6	305.5	305.5	305.4	305.4	305.3	305.2	305.2
130°	319.2	319.3	319.4	319.4	319.4	319.4	319.4	319.4
132.5°	332.6	332.8	332.9	332.9	332.8	332.6	332.6	332.5
135°	351.1	351.3	351.4	351.6	351.7	351.9	352.1	352.2
137.5°	368.9	369.1	369.2	369.3	369.2	369.2	369.1	369.1
140°	379.8	380.1	380.3	380.5	380.6	380.6	380.7	380.8
142.5°	390.0	390.2	390.3	390.4	390.5	390.5	390.5	390.5
145°	404.6	404.7	404.7	404.8	405.0	405.2	405.3	405.5
147.5°	417.3	417.4	417.4	417.5	417.6	417.6	417.7	417.8
150°	425.5	425.5	425.5	425.5	425.6	425.7	425.7	425.8
152.5°	432.5	432.6	432.8	432.8	432.7	432.7	432.7	432.6
155°	442.1	442.4	442.7	442.8	442.5	442.3	442.1	441.8
157.5°	450.4	450.8	451.2	451.2	450.8	450.4	450.0	449.6
160°	455.7	456.2	456.6	456.6	456.2	455.7	455.1	454.6
162.5°	459.9	460.4	460.9	460.8	460.3	459.8	459.2	458.7
165°	466.0	466.6	467.3	467.2	466.5	465.7	465.0	464.3
167.5°	470.4	471.1	471.7	471.7	470.9	470.1	469.3	468.6
170°	473.1	473.7	474.3	474.2	473.5	472.7	471.9	471.1
172.5°	474.8	475.4	476.1	475.9	475.1	474.2	473.4	472.5
175°	476.9	477.6	478.3	478.2	477.2	476.3	475.2	474.3
177.5°	477.7	478.2	478.7	478.5	477.8	477.0	476.3	475.4
180°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2

(END OF REPORT)