

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: P332587-840

Luminaire Tested: **SA4XXDIP-C795D365U840-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332587-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
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-F1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

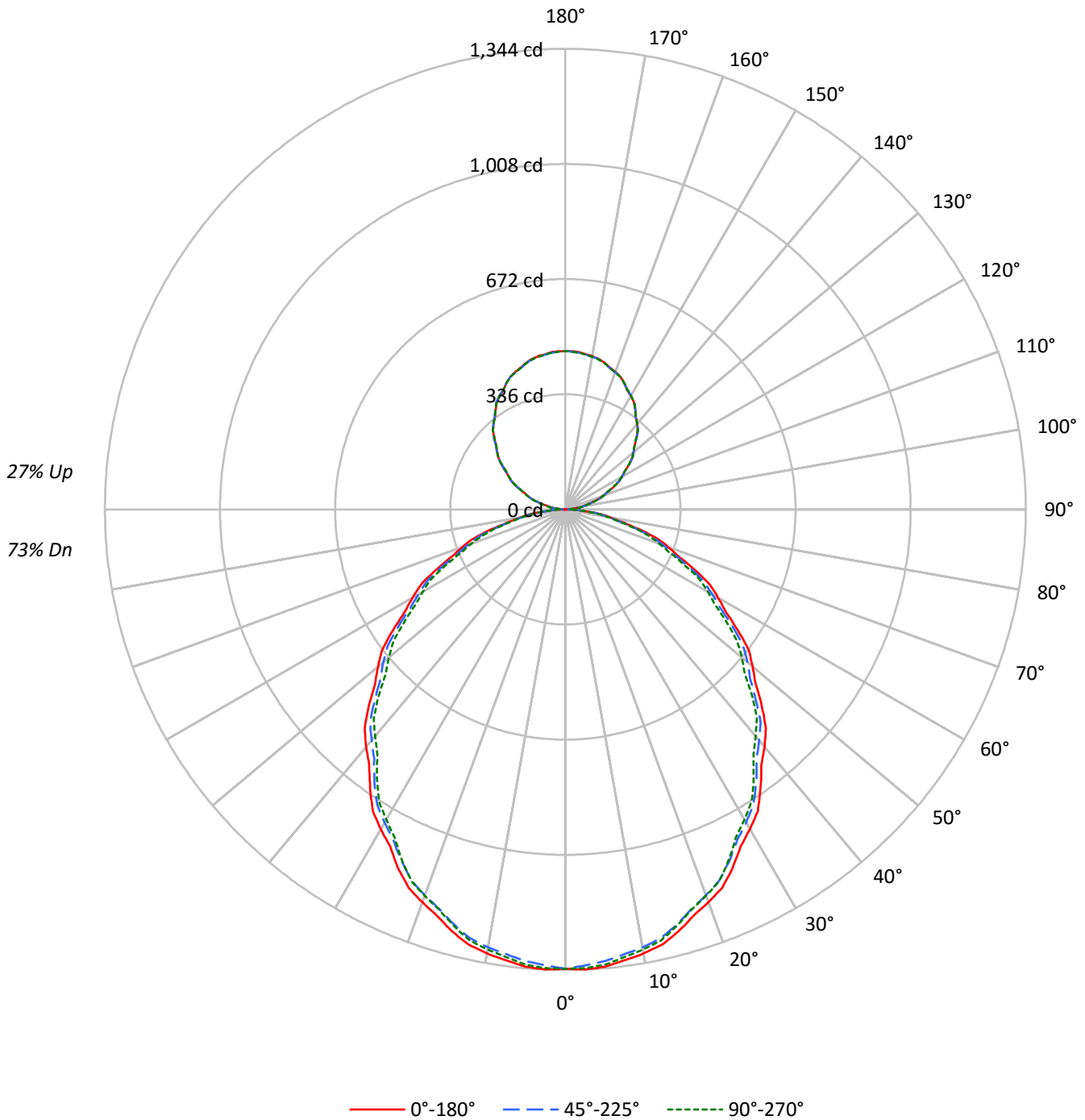
Lumens per Lamp: N/A
Luminaire Lumens: 4721.6 lumens
Efficiency: N/A
Efficacy: 134.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Direct

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



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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	50	30	10	0	
RCR																						
0	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77	73				73
1	103	98	94	91	97	93	90	87	84	82	79	76	74	72	68	67	65	61				61
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55	51				51
3	85	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47	43				43
4	78	67	59	52	74	64	56	51	58	52	47	53	48	44	48	44	40	37				37
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35	32				32
6	66	54	45	39	63	51	44	38	47	41	36	43	37	33	39	34	31	28				28
7	62	49	40	35	58	47	39	34	43	36	32	39	34	30	36	31	28	25				25
8	57	44	36	31	54	43	35	30	39	33	28	36	30	26	33	28	25	23				23
9	53	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	22	20				20
10	50	37	30	25	47	36	29	24	33	27	23	31	25	22	28	24	20	18				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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.2	2.7
10°-20°	355.7	7.5
20°-30°	523.5	11.1
30°-40°	608.6	12.9
40°-50°	608.7	12.9
50°-60°	532.4	11.3
60°-70°	395.4	8.4
70°-80°	224.6	4.8
80°-90°	66.2	1.4
90°-100°	30.4	0.6
100°-110°	90.2	1.9
110°-120°	153.0	3.2
120°-130°	201.8	4.3
130°-140°	226.6	4.8
140°-150°	222.7	4.7
150°-160°	187.3	4.0
160°-170°	124.6	2.6
170°-180°	43.6	0.9
0°-30°	1005.5	21.3
0°-40°	1614.1	34.2
0°-60°	2755.2	58.4
0°-90°	3441.4	72.9
90°-120°	273.6	5.8
90°-150°	924.6	19.6
90°-180°	1280.0	27.1
0°-180°	4721.6	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°	21	25	27	28	28	24
105°	83	84	85	86	87	88
115°	156	156	155	154	154	153
125°	227	227	226	226	225	202
135°	292	294	294	294	293	226
145°	355	356	357	356	356	222
155°	407	407	406	408	406	187
165°	443	442	441	443	442	125
175°	461	459	459	461	459	44
180°	461	461	461	461	461	



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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°	7.7	8.7	9.6	10.6	11.6	12.3	12.8	13.2	13.7	14.1	14.4
95°	21.4	22.1	22.8	23.5	24.2	24.9	25.4	26.1	26.6	27.2	27.4
97.5°	37.4	38.0	38.6	39.1	39.7	40.3	40.9	41.6	42.2	42.9	43.2
100°	50.0	50.3	50.6	50.9	51.2	51.7	52.4	53.2	53.9	54.6	54.7
102.5°	63.1	63.2	63.3	63.5	63.6	64.0	64.6	65.3	65.9	66.6	66.9
105°	83.1	83.2	83.3	83.4	83.4	83.6	84.0	84.3	84.6	84.9	85.1
107.5°	104.2	104.3	104.4	104.5	104.6	104.6	104.7	104.7	104.8	104.8	105.0
110°	118.5	118.7	118.8	119.0	119.1	119.2	119.1	119.0	118.9	118.9	118.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	133.3	133.3	133.4	133.4	133.4	133.4	133.2	133.1	133.0	132.8	132.8
115°	155.6	155.6	155.6	155.6	155.6	155.5	155.3	155.2	155.0	154.9	154.8
117.5°	176.5	176.6	176.7	176.7	176.8	176.8	176.7	176.6	176.4	176.3	176.1
120°	190.6	190.9	191.2	191.5	191.9	191.9	191.7	191.4	191.2	191.0	190.6
122.5°	205.1	205.2	205.4	205.5	205.6	205.6	205.5	205.4	205.3	205.2	204.9
125°	226.6	226.6	226.6	226.6	226.6	226.5	226.5	226.4	226.3	226.2	226.1
127.5°	246.1	246.3	246.6	246.8	247.0	247.1	247.0	246.8	246.7	246.6	246.4
130°	259.8	260.0	260.2	260.5	260.7	260.8	260.8	260.8	260.8	260.8	260.7
132.5°	273.8	274.0	274.1	274.3	274.5	274.5	274.5	274.4	274.4	274.3	274.1
135°	292.3	292.8	293.2	293.7	294.2	294.4	294.4	294.4	294.4	294.4	294.3
137.5°	312.4	312.7	312.9	313.1	313.3	313.5	313.6	313.7	313.9	314.0	313.8
140°	325.8	326.0	326.1	326.3	326.5	326.5	326.5	326.5	326.5	326.5	326.5
142.5°	338.1	338.2	338.4	338.5	338.7	338.8	338.7	338.6	338.6	338.5	338.5
145°	355.1	355.4	355.7	356.0	356.4	356.6	356.6	356.7	356.8	356.9	356.8
147.5°	371.9	372.3	372.6	373.0	373.4	373.5	373.5	373.4	373.4	373.3	373.2
150°	382.2	382.5	382.8	383.1	383.4	383.6	383.6	383.6	383.6	383.6	383.6
152.5°	391.9	392.1	392.2	392.4	392.6	392.7	392.8	392.9	392.9	393.0	393.2
155°	406.8	406.8	406.8	406.8	406.8	406.8	406.7	406.6	406.6	406.5	406.8
157.5°	419.4	419.2	419.1	419.0	418.8	418.7	418.7	418.7	418.7	418.7	418.9
160°	426.8	426.7	426.7	426.6	426.5	426.4	426.4	426.3	426.2	426.1	426.4
162.5°	433.6	433.4	433.2	433.0	432.8	432.7	432.6	432.5	432.4	432.3	432.8
165°	442.8	442.6	442.4	442.1	441.9	441.7	441.5	441.4	441.2	441.1	441.5
167.5°	449.9	449.6	449.3	448.9	448.6	448.4	448.5	448.5	448.5	448.5	449.0
170°	453.9	453.5	453.1	452.7	452.3	452.2	452.2	452.3	452.4	452.5	452.9
172.5°	456.8	456.5	456.1	455.8	455.4	455.2	455.2	455.3	455.3	455.3	455.9
175°	460.7	460.3	459.9	459.5	459.1	458.9	458.8	458.7	458.7	458.6	459.1
177.5°	462.0	461.7	461.3	461.0	460.7	460.6	460.6	460.6	460.6	460.6	461.0
180°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4



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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°	14.7	14.9	15.2	15.5	15.6	15.7	15.8	15.9
95°	27.6	27.9	28.1	28.2	28.2	28.2	28.2	28.2
97.5°	43.4	43.7	44.0	44.1	44.1	44.1	44.1	44.1
100°	54.9	55.0	55.2	55.3	55.3	55.3	55.3	55.3
102.5°	67.1	67.3	67.5	67.7	67.7	67.8	67.8	67.9
105°	85.4	85.6	85.8	86.1	86.3	86.6	86.8	87.1
107.5°	105.3	105.5	105.7	105.8	105.8	105.8	105.8	105.7
110°	118.6	118.4	118.2	118.3	118.5	118.8	119.0	119.2



TEST NUMBER: P332587-840

CATALOG NUMBER: SA4XXDIP-C795D365U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	132.8	132.7	132.7	132.7	132.8	132.8	132.8	132.9
115°	154.7	154.6	154.5	154.5	154.4	154.3	154.2	154.2
117.5°	175.8	175.5	175.3	175.1	174.9	174.7	174.6	174.4
120°	190.2	189.8	189.3	189.2	189.3	189.6	189.7	189.9
122.5°	204.7	204.4	204.1	203.8	203.6	203.3	203.0	202.7
125°	225.9	225.8	225.6	225.4	225.3	225.1	225.0	224.8
127.5°	246.3	246.1	245.9	245.8	245.7	245.6	245.4	245.3
130°	260.5	260.3	260.2	259.9	259.6	259.3	259.0	258.7
132.5°	274.0	273.8	273.7	273.5	273.4	273.3	273.2	273.0
135°	294.1	294.0	293.8	293.6	293.4	293.1	292.9	292.7
137.5°	313.6	313.4	313.2	313.1	313.1	313.2	313.2	313.3
140°	326.4	326.3	326.2	326.1	326.1	326.0	325.9	325.8
142.5°	338.5	338.5	338.4	338.4	338.4	338.4	338.4	338.4
145°	356.7	356.6	356.6	356.4	356.2	355.9	355.7	355.5
147.5°	373.2	373.1	373.0	373.0	372.9	372.8	372.7	372.7
150°	383.6	383.6	383.6	383.5	383.5	383.4	383.3	383.2
152.5°	393.4	393.6	393.8	393.7	393.5	393.3	393.1	392.9
155°	407.1	407.4	407.7	407.7	407.4	407.1	406.8	406.5
157.5°	419.1	419.4	419.6	419.6	419.3	419.1	418.8	418.5
160°	426.6	426.8	427.1	427.0	426.6	426.2	425.8	425.4
162.5°	433.2	433.6	434.0	434.0	433.7	433.3	432.9	432.5
165°	442.0	442.5	442.9	443.0	442.7	442.4	442.1	441.8
167.5°	449.5	449.9	450.4	450.4	449.9	449.4	448.9	448.4
170°	453.4	453.9	454.4	454.3	453.8	453.2	452.7	452.1
172.5°	456.5	457.0	457.5	457.5	457.0	456.4	455.9	455.2
175°	459.7	460.2	460.8	460.8	460.2	459.7	459.1	458.6
177.5°	461.4	461.9	462.3	462.3	461.8	461.3	460.8	460.3
180°	461.4	461.4	461.4	461.4	461.4	461.4	461.4	461.4

(END OF REPORT)