

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: P332619-840

Luminaire Tested: **SA4XXDIP-C795D1205U840-4F0-1E-UDD-D**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332619-840
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-C795D1205U840-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

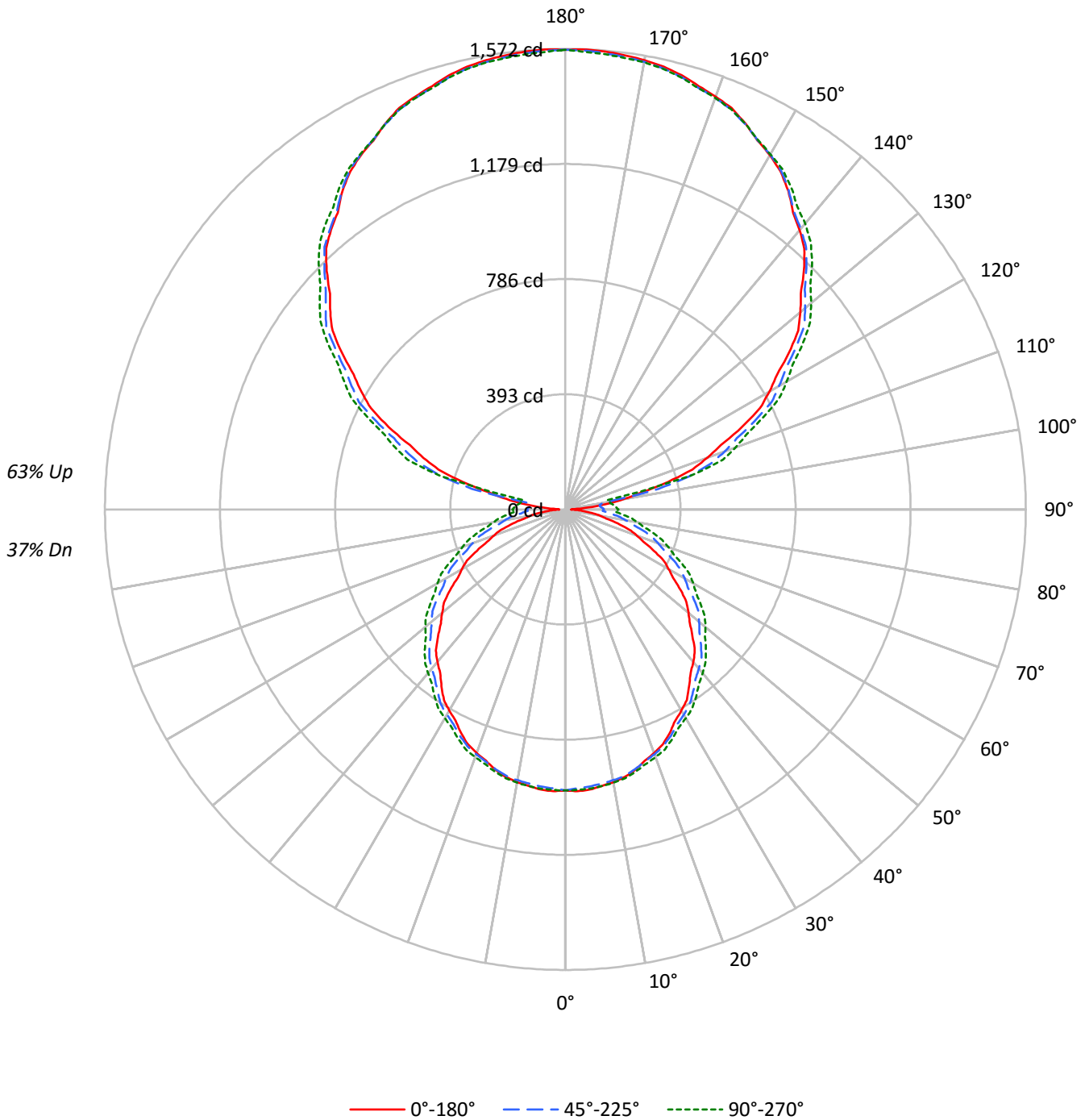
Lumens per Lamp: N/A
Luminaire Lumens: 8127.4 lumens
Efficiency: N/A
Efficacy: 142.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

Input Watts (W): 56.9
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: P332619-840
CATALOG NUMBER: SA4XXDIP-C795D1205U840-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332619-840

CATALOG NUMBER: SA4XXDIP-C795D1205U840-4F0-1E-UDD-D

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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	94	90	85	82	85	81	78	75	66	63	61	51	50	48	38	37	36	30
2	85	78	71	66	77	71	65	61	57	53	50	45	42	39	33	31	30	24
3	78	68	61	55	70	62	55	50	50	45	41	39	36	33	29	27	25	20
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15
6	60	48	39	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	29	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	26	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7744	7744	7744
5°	7768	7569	7589
10°	7720	7444	7439
15°	7651	7301	7261
20°	7547	7143	7089
25°	7429	6965	6898
30°	7302	6789	6703
35°	7158	6609	6532
40°	7042	6436	6353
45°	6871	6278	6200
50°	6727	6095	6039
55°	6577	5924	5849
60°	6344	5704	5676
65°	6089	5468	5463
70°	5778	5200	5215
75°	5348	4904	4991
80°	4865	4620	4771
85°	4264	4369	4644



TEST NUMBER: P332619-840

CATALOG NUMBER: SA4XXDIP-C795D1205U840-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.1
10°-20°	260.3	3.2
20°-30°	393.5	4.8
30°-40°	476.1	5.9
40°-50°	503.4	6.2
50°-60°	473.7	5.8
60°-70°	393.1	4.8
70°-80°	276.1	3.4
80°-90°	160.6	2.0
90°-100°	146.3	1.8
100°-110°	410.7	5.1
110°-120°	700.5	8.6
120°-130°	856.8	10.5
130°-140°	900.1	11.1
140°-150°	833.5	10.3
150°-160°	670.4	8.2
160°-170°	432.4	5.3
170°-180°	149.0	1.8
0°-30°	744.6	9.2
0°-40°	1220.8	15.0
0°-60°	2197.9	27.0
0°-90°	3027.6	37.3
90°-120°	1257.6	15.5
90°-150°	3848.0	47.3
90°-180°	5100.0	62.8
0°-180°	8127.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	957	950	958	957	91
15°	921	921	918	928	927	259
25°	842	848	852	863	865	388
35°	737	750	760	775	779	461
45°	614	635	655	673	679	475
55°	481	504	536	557	564	429
65°	333	368	404	430	439	330
75°	185	225	270	299	309	196
85°	57	102	150	181	193	61
90°	21	77	132	169	181	14
95°	78	77	119	154	166	94
105°	363	392	437	470	441	380
115°	666	680	712	737	746	656
125°	931	936	959	982	991	831
135°	1152	1152	1163	1182	1191	888
145°	1327	1329	1330	1337	1344	829
155°	1454	1455	1452	1456	1453	670
165°	1534	1528	1528	1536	1527	433
175°	1569	1562	1563	1572	1559	149
180°	1569	1569	1569	1569	1569	



TEST NUMBER: P332619-840

CATALOG NUMBER: SA4XXDIP-C795D1205U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	962.7	962.1	961.5	961.0	960.4	959.4	957.8	956.2	954.7	953.2	954.5
5°	960.3	959.6	958.9	958.2	957.5	956.2	954.5	952.9	951.2	949.6	951.5
7.5°	952.1	951.7	951.3	950.9	950.4	949.5	948.2	946.7	945.3	944.0	946.1
10°	945.2	945.0	944.8	944.5	944.3	943.6	942.4	941.2	940.0	938.8	941.0
12.5°	935.8	935.7	935.7	935.6	935.6	935.2	934.4	933.5	932.7	931.9	933.9
15°	920.6	920.8	921.0	921.3	921.5	921.3	920.6	919.9	919.1	918.4	920.6
17.5°	899.7	900.4	901.1	901.9	902.6	902.8	902.7	902.6	902.4	902.3	904.5
20°	885.1	885.9	886.6	887.3	888.0	888.5	888.7	888.9	889.2	889.4	891.8
22.5°	868.8	869.7	870.6	871.5	872.4	873.1	873.5	873.9	874.3	874.8	877.2
25°	842.1	843.5	845.1	846.5	847.9	849.0	849.7	850.4	851.1	851.8	854.4
27.5°	812.5	814.6	816.7	818.8	820.9	822.5	823.6	824.7	825.8	826.9	829.3
30°	792.7	794.7	796.6	798.5	800.4	802.1	803.9	805.5	807.2	808.8	811.4
32.5°	771.2	773.6	775.9	778.1	780.4	782.4	784.4	786.2	788.1	789.9	792.9
35°	736.9	739.7	742.7	745.5	748.3	750.9	753.4	755.8	758.1	760.5	763.9
37.5°	702.3	705.6	708.9	712.2	715.5	718.6	721.5	724.5	727.5	730.4	733.9
40°	679.9	683.1	686.1	689.2	692.4	695.6	698.9	702.3	705.6	708.9	712.6
42.5°	654.2	657.6	661.2	664.6	668.1	671.8	675.7	679.6	683.6	687.4	691.5
45°	614.4	618.9	623.5	628.0	632.6	637.1	641.7	646.2	650.7	655.2	659.3
47.5°	576.4	581.1	585.7	590.5	595.1	600.1	605.3	610.6	615.8	621.1	625.3
50°	548.9	554.1	559.4	564.6	569.9	575.1	580.4	585.6	590.9	596.1	601.0
52.5°	521.4	526.6	531.9	537.1	542.4	548.1	554.0	560.1	566.1	572.1	576.8
55°	481.2	486.3	491.3	496.2	501.3	507.4	514.5	521.7	528.9	536.0	540.8
57.5°	436.4	442.5	448.8	454.9	461.1	467.8	474.9	482.0	489.2	496.2	501.9
60°	407.1	413.3	419.5	425.8	431.9	439.0	446.9	454.7	462.6	470.5	475.9
62.5°	378.7	385.6	392.3	399.1	405.9	413.2	421.1	429.0	436.9	444.7	450.2
65°	333.0	340.6	348.3	355.9	363.6	371.4	379.5	387.7	395.8	403.8	409.8
67.5°	288.9	297.1	305.2	313.3	321.4	329.8	338.5	347.2	355.9	364.6	370.6
70°	258.8	267.0	275.1	283.3	291.3	299.9	309.0	318.1	327.1	336.2	342.6
72.5°	229.6	237.9	246.3	254.6	262.9	271.9	281.6	291.1	300.8	310.4	316.7
75°	184.8	193.6	202.4	211.3	220.0	229.5	239.5	249.5	259.6	269.6	276.3
77.5°	142.9	152.2	161.6	171.0	180.3	190.3	200.8	211.3	221.8	232.3	239.0
80°	117.0	126.6	136.1	145.7	155.3	165.3	175.8	186.3	196.8	207.3	214.5
82.5°	91.3	101.2	111.2	121.1	131.0	141.3	151.8	162.3	172.8	183.3	190.6
85°	57.0	67.0	77.0	87.1	97.0	107.4	118.2	128.9	139.7	150.4	157.5
87.5°	32.5	42.8	53.1	63.4	73.7	84.3	95.2	106.1	116.9	127.8	135.0
90°	20.7	33.1	45.5	58.0	70.4	82.7	95.1	107.4	119.8	132.2	140.7
92.5°	31.1	39.9	48.6	57.4	66.1	76.6	89.0	101.4	113.7	126.0	134.3
95°	78.5	77.6	76.5	75.5	74.5	79.1	89.2	99.2	109.3	119.3	127.2
97.5°	149.8	162.1	174.3	186.6	198.9	195.4	176.0	156.6	137.1	117.8	124.2
100°	204.3	215.2	226.0	236.9	247.8	239.9	213.3	186.6	160.0	133.3	135.3
102.5°	266.2	275.1	284.0	292.9	301.7	308.4	312.9	317.3	321.6	326.1	284.6
105°	362.8	369.2	375.6	381.9	388.2	396.5	406.6	416.8	426.9	437.0	445.4
107.5°	454.4	459.1	463.8	468.5	473.2	480.6	490.7	500.9	511.0	521.1	528.2
110°	515.5	519.7	523.7	527.9	532.0	539.1	549.0	558.9	568.8	578.8	584.7



TEST NUMBER: P332619-840

CATALOG NUMBER: SA4XXDIP-C795D1205U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	574.7	579.1	583.5	587.8	592.2	598.7	607.4	616.1	624.8	633.6	638.7
115°	665.9	668.8	671.8	674.7	677.6	682.8	690.1	697.5	704.9	712.3	718.1
117.5°	749.0	751.3	753.7	756.0	758.3	763.4	771.0	778.7	786.4	794.1	798.9
120°	804.5	806.3	808.0	809.7	811.5	815.7	822.3	829.0	835.7	842.3	847.7
122.5°	857.1	857.8	858.6	859.3	860.1	863.9	870.8	877.8	884.6	891.6	896.7
125°	931.3	932.1	932.9	933.7	934.5	937.7	943.1	948.6	954.0	959.4	964.7
127.5°	1002.4	1002.5	1002.5	1002.5	1002.5	1005.4	1011.2	1016.9	1022.8	1028.5	1032.7
130°	1047.5	1047.6	1047.6	1047.6	1047.6	1050.0	1054.6	1059.1	1063.8	1068.3	1072.9
132.5°	1089.8	1090.0	1090.3	1090.5	1090.8	1092.9	1096.9	1101.0	1105.0	1109.0	1113.4
135°	1152.1	1151.9	1151.5	1151.3	1151.0	1152.3	1155.0	1157.7	1160.4	1163.2	1167.5
137.5°	1208.2	1208.0	1207.9	1207.8	1207.7	1208.6	1210.5	1212.4	1214.5	1216.4	1220.4
140°	1244.8	1245.1	1245.4	1245.7	1246.0	1246.5	1247.2	1248.0	1248.7	1249.5	1253.3
142.5°	1276.8	1277.7	1278.6	1279.5	1280.3	1280.9	1281.0	1281.2	1281.4	1281.5	1284.9
145°	1327.1	1327.6	1328.1	1328.7	1329.2	1329.5	1329.5	1329.5	1329.5	1329.5	1331.2
147.5°	1367.2	1368.4	1369.6	1370.8	1372.0	1372.5	1372.3	1372.0	1371.7	1371.5	1371.9
150°	1396.2	1397.0	1397.9	1398.7	1399.5	1399.8	1399.5	1399.3	1399.0	1398.7	1398.7
152.5°	1419.8	1420.6	1421.4	1422.2	1423.0	1423.1	1422.7	1422.2	1421.7	1421.3	1421.7
155°	1453.9	1454.1	1454.4	1454.6	1454.9	1454.6	1453.9	1453.1	1452.3	1451.5	1452.6
157.5°	1482.7	1482.6	1482.4	1482.3	1482.1	1481.6	1480.7	1479.9	1478.9	1478.0	1479.4
160°	1499.6	1498.8	1498.0	1497.3	1496.5	1496.0	1495.7	1495.4	1495.2	1494.9	1496.5
162.5°	1514.6	1513.7	1512.7	1511.7	1510.7	1510.1	1509.7	1509.5	1509.2	1509.0	1510.6
165°	1533.7	1532.4	1531.1	1529.7	1528.4	1527.8	1527.8	1527.8	1527.8	1527.8	1529.8
167.5°	1548.6	1547.3	1546.0	1544.6	1543.3	1542.5	1542.4	1542.2	1542.1	1541.9	1544.2
170°	1557.1	1555.6	1554.0	1552.5	1550.8	1550.2	1550.4	1550.7	1551.0	1551.3	1553.4
172.5°	1562.8	1561.2	1559.6	1558.0	1556.5	1555.8	1556.1	1556.4	1556.6	1556.9	1558.9
175°	1568.8	1567.3	1565.7	1564.2	1562.6	1562.0	1562.2	1562.5	1562.8	1563.0	1565.3
177.5°	1571.7	1570.2	1568.7	1567.3	1565.8	1565.3	1565.7	1566.1	1566.6	1567.0	1568.6
180°	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8



TEST NUMBER: P332619-840

CATALOG NUMBER: SA4XXDIP-C795D1205U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	955.8	957.3	958.6	959.2	959.0	958.8	958.6	958.4
5°	953.4	955.3	957.2	958.1	957.8	957.6	957.4	957.0
7.5°	948.3	950.4	952.6	953.5	953.3	953.0	952.8	952.6
10°	943.1	945.2	947.5	948.4	948.2	947.9	947.7	947.5
12.5°	935.8	937.9	939.8	940.7	940.7	940.6	940.6	940.5
15°	922.7	924.8	927.0	928.0	927.8	927.5	927.3	927.0
17.5°	906.7	908.9	911.1	912.1	911.9	911.7	911.5	911.3
20°	894.1	896.6	899.0	900.2	900.2	900.2	900.2	900.2
22.5°	879.6	881.9	884.3	885.8	886.2	886.5	886.9	887.3
25°	857.1	859.7	862.3	863.7	863.9	864.2	864.4	864.7
27.5°	831.7	834.1	836.7	838.0	838.3	838.6	838.9	839.1
30°	814.1	816.7	819.3	820.9	821.4	821.8	822.3	822.8
32.5°	796.0	799.0	801.9	803.8	804.2	804.7	805.2	805.7
35°	767.2	770.5	773.9	775.9	776.6	777.3	778.1	778.8
37.5°	737.2	740.6	744.0	746.1	746.8	747.6	748.3	749.1
40°	716.1	719.7	723.3	725.5	726.5	727.4	728.4	729.3
42.5°	695.4	699.3	703.3	705.7	706.4	707.2	708.0	708.7
45°	663.4	667.4	671.5	674.1	675.3	676.5	677.7	678.8
47.5°	629.4	633.7	637.9	640.7	642.2	643.6	645.0	646.4
50°	605.7	610.5	615.2	618.3	619.8	621.3	622.7	624.1
52.5°	581.7	586.4	591.2	594.3	595.7	597.1	598.5	600.1
55°	545.5	550.4	555.1	558.3	559.7	561.1	562.5	563.9
57.5°	507.7	513.3	519.0	522.5	523.8	525.1	526.5	527.9
60°	481.5	487.0	492.4	496.1	498.1	500.0	501.9	503.8
62.5°	455.7	461.2	466.7	470.4	472.3	474.2	476.1	478.0
65°	415.9	421.8	427.8	431.7	433.6	435.6	437.4	439.3
67.5°	376.7	382.7	388.8	392.7	394.7	396.5	398.4	400.2
70°	349.1	355.6	362.0	366.1	367.7	369.4	371.0	372.7
72.5°	323.0	329.2	335.5	339.5	341.3	343.3	345.1	347.0
75°	283.0	289.6	296.4	300.7	303.0	305.1	307.2	309.3
77.5°	245.8	252.6	259.3	263.9	266.2	268.4	270.7	273.1
80°	221.7	228.8	236.0	240.4	242.4	244.3	246.2	248.1
82.5°	197.9	205.3	212.7	217.4	219.4	221.6	223.7	225.8
85°	164.7	171.9	179.0	183.8	186.2	188.5	191.0	193.4
87.5°	142.3	149.6	156.7	161.5	163.7	165.9	168.1	170.3
90°	149.2	157.6	166.1	171.6	174.0	176.4	178.8	181.3
92.5°	142.7	151.0	159.3	164.4	166.4	168.4	170.5	172.5
95°	135.3	143.3	151.3	156.5	159.0	161.4	163.7	166.1
97.5°	130.6	137.0	143.4	147.7	150.1	152.4	154.7	157.0
100°	137.2	139.3	141.3	143.3	145.2	147.1	149.1	151.0
102.5°	243.0	201.4	159.9	140.0	141.9	143.8	145.7	147.6
105°	453.6	461.9	470.3	470.7	463.2	455.8	448.3	440.8
107.5°	535.1	542.2	549.2	554.1	556.7	559.5	562.2	564.9
110°	590.8	596.7	602.8	607.1	609.8	612.5	615.2	617.8



TEST NUMBER: P332619-840

CATALOG NUMBER: SA4XXDIP-C795D1205U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	643.9	649.1	654.3	658.3	661.3	664.2	667.1	669.9
115°	723.9	729.6	735.4	739.1	740.7	742.5	744.1	745.8
117.5°	803.9	808.7	813.5	816.9	818.7	820.5	822.2	824.0
120°	852.9	858.3	863.5	866.9	868.3	869.7	871.0	872.4
122.5°	901.7	906.9	911.9	915.0	916.3	917.5	918.7	919.9
125°	970.1	975.3	980.7	984.2	985.9	987.5	989.3	991.0
127.5°	1036.8	1041.0	1045.1	1047.8	1049.2	1050.7	1052.1	1053.5
130°	1077.5	1082.1	1086.6	1089.5	1091.1	1092.5	1093.9	1095.3
132.5°	1117.8	1122.2	1126.5	1129.3	1130.5	1131.8	1133.0	1134.2
135°	1171.8	1176.2	1180.5	1183.7	1185.6	1187.6	1189.5	1191.4
137.5°	1224.6	1228.6	1232.6	1235.2	1236.2	1237.3	1238.3	1239.3
140°	1257.3	1261.1	1265.1	1267.7	1269.2	1270.6	1272.0	1273.5
142.5°	1288.2	1291.4	1294.7	1297.0	1298.0	1299.0	1300.1	1301.1
145°	1332.8	1334.5	1336.3	1337.9	1339.3	1340.8	1342.3	1343.7
147.5°	1372.3	1372.7	1373.1	1373.8	1374.8	1375.8	1376.8	1377.9
150°	1398.7	1398.7	1398.7	1398.9	1399.1	1399.4	1399.7	1399.9
152.5°	1422.1	1422.5	1422.9	1423.0	1422.9	1422.7	1422.6	1422.4
155°	1453.6	1454.6	1455.7	1455.8	1455.0	1454.2	1453.5	1452.7
157.5°	1480.8	1482.1	1483.5	1483.5	1482.1	1480.8	1479.4	1478.0
160°	1498.0	1499.6	1501.2	1501.2	1499.6	1498.0	1496.5	1494.9
162.5°	1512.2	1513.7	1515.3	1515.2	1513.4	1511.7	1509.8	1508.0
165°	1532.0	1534.1	1536.1	1536.0	1533.7	1531.3	1528.9	1526.6
167.5°	1546.5	1548.7	1551.1	1550.8	1548.3	1545.7	1543.1	1540.4
170°	1555.4	1557.5	1559.6	1559.3	1556.7	1554.1	1551.6	1548.9
172.5°	1561.0	1563.2	1565.2	1564.9	1562.1	1559.2	1556.4	1553.6
175°	1567.7	1570.0	1572.4	1572.0	1568.8	1565.7	1562.6	1559.4
177.5°	1570.3	1572.0	1573.7	1573.3	1570.7	1568.2	1565.7	1563.3
180°	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8	1568.8

(END OF REPORT)