

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: P332928-927

Luminaire Tested: **SA4XXRDIP-C795D365U927-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332928-927
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: SA4XXRDIP-C795D365U927-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3701.5 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Direct

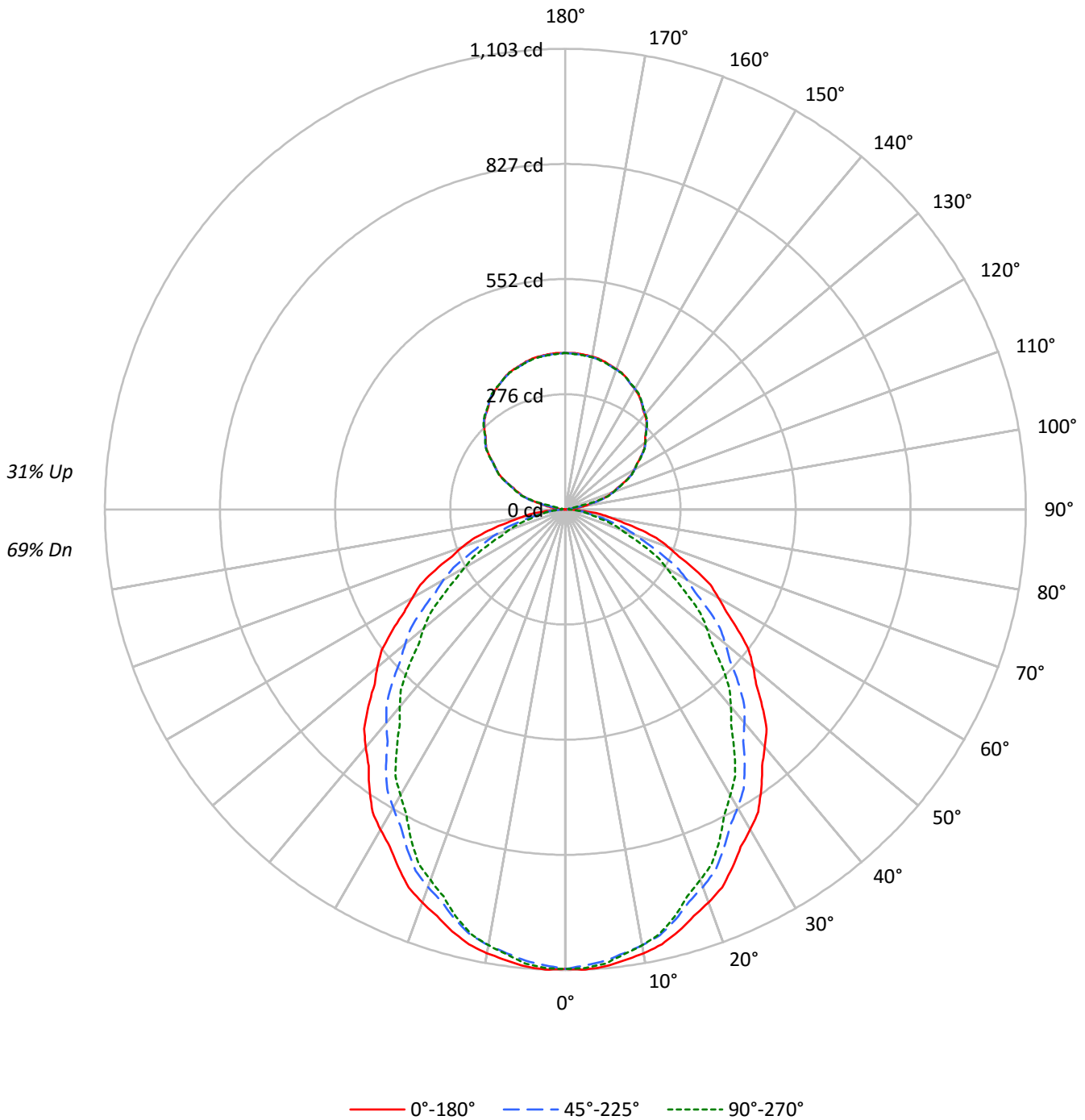
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									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	50	30	10	50	30	10	0																
RCR	0	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73	69	69	69	69	69	69	69	69	69	69	69	69																
	1	102	98	94	91	97	93	89	86	83	80	78	74	72	70	65	64	63	59	59	59	59	59	59	59	59	59	59	59	59																
	2	94	86	80	75	88	82	76	71	73	69	65	65	62	59	58	56	53	50	50	50	50	50	50	50	50	50	50	50	50																
	3	86	76	69	63	81	72	66	60	65	60	55	58	54	50	52	49	46	42	42	42	42	42	42	42	42	42	42	42	42																
	4	79	68	60	53	74	64	57	51	58	52	47	52	47	44	46	43	40	37	37	37	37	37	37	37	37	37	37	37	37																
	5	72	60	52	46	68	58	50	45	52	46	41	47	42	38	42	38	35	32	32	32	32	32	32	32	32	32	32	32	32																
	6	67	54	46	40	63	52	44	39	47	41	36	43	37	34	38	34	31	28	28	28	28	28	28	28	28	28	28	28	28																
	7	62	49	41	36	58	47	40	34	43	37	32	39	34	30	35	31	28	25	25	25	25	25	25	25	25	25	25	25	25																
	8	58	45	37	32	54	43	36	31	39	33	29	36	31	27	32	28	25	23	23	23	23	23	23	23	23	23	23	23	23																
	9	54	41	34	29	51	40	32	28	36	30	26	33	28	24	30	26	23	21	21	21	21	21	21	21	21	21	21	21	21																
	10	50	38	31	26	48	36	30	25	33	28	24	30	26	22	28	24	21	19	19	19	19	19	19	19	19	19	19	19	19																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8884	8884	8884
5°	8904	8795	8849
10°	8848	8689	8689
15°	8747	8507	8444
20°	8607	8267	8115
25°	8429	7986	7783
30°	8255	7690	7368
35°	8064	7383	6951
40°	7832	7032	6500
45°	7618	6687	6042
50°	7376	6286	5556
55°	7116	5871	5029
60°	6830	5414	4490
65°	6567	4846	3960
70°	6187	4216	3361
75°	5702	3497	2732
80°	4974	2664	2506
85°	4215	2418	2260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.4	2.8
10°-20°	288.3	7.8
20°-30°	416.3	11.2
30°-40°	471.8	12.7
40°-50°	455.6	12.3
50°-60°	378.9	10.2
60°-70°	261.6	7.1
70°-80°	132.6	3.6
80°-90°	35.1	0.9
90°-100°	12.8	0.3
100°-110°	81.6	2.2
110°-120°	156.1	4.2
120°-130°	198.2	5.4
130°-140°	212.1	5.7
140°-150°	198.3	5.4
150°-160°	159.9	4.3
160°-170°	103.2	2.8
170°-180°	35.6	1.0
0°-30°	807.9	21.8
0°-40°	1279.7	34.6
0°-60°	2114.3	57.1
0°-90°	2543.6	68.7
90°-120°	250.6	6.8
90°-150°	859.2	23.2
90°-180°	1158.0	31.3
0°-180°	3701.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1099	1095	1085	1093	1092	104
15°	1047	1038	1018	1016	1010	295
25°	946	930	896	883	874	436
35°	818	790	749	721	705	511
45°	667	635	586	546	529	514
55°	506	471	417	375	357	452
65°	344	307	254	219	207	339
75°	183	151	112	93	88	193
85°	46	29	26	24	24	51
90°	1	4	6	8	8	3
95°	15	6	6	8	8	20
105°	84	86	87	89	80	88
115°	157	158	158	158	158	155
125°	221	222	222	222	223	197
135°	274	274	275	276	276	211
145°	316	317	317	317	318	198
155°	347	347	346	347	347	160
165°	366	365	364	366	364	103
175°	374	373	373	375	372	36
180°	374	374	374	374	374	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1103.2	1102.6	1101.9	1101.4	1100.7	1099.6	1098.0	1096.4	1094.7	1093.1	1094.7
5°	1098.8	1098.0	1097.3	1096.5	1095.7	1094.3	1092.0	1089.8	1087.5	1085.3	1087.2
7.5°	1088.9	1088.1	1087.3	1086.5	1085.7	1083.9	1080.9	1078.0	1075.1	1072.1	1073.3
10°	1079.4	1078.5	1077.5	1076.6	1075.6	1073.5	1070.2	1066.8	1063.4	1060.0	1060.7
12.5°	1067.2	1066.2	1065.1	1064.0	1063.0	1060.4	1056.5	1052.4	1048.5	1044.5	1045.0
15°	1046.6	1044.9	1043.1	1041.5	1039.8	1036.6	1031.9	1027.2	1022.5	1017.9	1017.5
17.5°	1021.4	1019.0	1016.5	1014.2	1011.7	1007.7	1002.0	996.4	990.8	985.2	984.1
20°	1001.9	999.4	997.0	994.6	992.1	987.8	981.4	975.0	968.6	962.3	960.8
22.5°	980.3	977.6	974.9	972.1	969.4	964.6	957.7	950.9	944.1	937.3	935.1
25°	946.3	942.9	939.5	936.1	932.8	927.2	919.6	911.9	904.2	896.5	893.3
27.5°	910.5	906.3	902.1	897.9	893.6	887.4	879.2	871.0	862.8	854.6	850.6
30°	885.6	880.9	876.2	871.6	866.9	860.2	851.4	842.6	833.7	824.9	820.2
32.5°	859.3	854.1	848.7	843.4	838.2	831.0	821.9	812.8	803.7	794.6	789.2
35°	818.2	812.2	806.2	800.2	794.2	786.6	777.2	767.8	758.4	749.1	742.8
37.5°	774.2	768.0	761.8	755.7	749.5	741.2	730.9	720.5	710.1	699.7	692.6
40°	743.2	737.0	730.9	724.7	718.5	710.0	699.3	688.7	678.0	667.3	659.5
42.5°	713.5	707.0	700.6	694.1	687.6	678.8	667.7	656.6	645.5	634.3	626.3
45°	667.3	660.4	653.5	646.6	639.6	630.6	619.3	608.1	596.8	585.7	576.5
47.5°	619.6	612.5	605.4	598.2	591.0	581.6	570.0	558.3	546.6	534.9	525.4
50°	587.3	580.0	572.7	565.4	558.1	548.4	536.5	524.5	512.5	500.5	491.2
52.5°	554.3	547.2	540.0	532.8	525.7	515.9	503.7	491.4	479.1	466.8	457.3
55°	505.6	498.0	490.6	483.1	475.6	465.8	453.6	441.4	429.3	417.1	407.3
57.5°	457.4	449.6	441.8	434.0	426.2	416.3	404.3	392.4	380.4	368.4	358.5
60°	423.0	415.5	408.1	400.5	393.0	383.3	371.3	359.3	347.4	335.3	325.6
62.5°	392.0	384.2	376.4	368.6	360.8	350.8	338.5	326.2	313.9	301.7	292.6
65°	343.8	335.7	327.6	319.6	311.6	301.6	289.5	277.6	265.6	253.7	245.6
67.5°	293.7	286.1	278.3	270.6	262.8	253.5	242.3	231.2	220.1	209.0	202.0
70°	262.1	254.2	246.3	238.4	230.6	221.3	210.6	199.9	189.3	178.6	172.5
72.5°	228.4	221.3	214.1	207.0	199.9	191.3	181.3	171.1	161.1	151.0	145.7
75°	182.8	175.9	169.0	162.1	155.1	147.3	138.5	129.7	120.9	112.1	107.7
77.5°	136.7	130.8	124.9	119.1	113.1	106.6	99.6	92.4	85.3	78.2	75.7
80°	107.0	101.6	96.2	90.7	85.3	79.8	74.1	68.5	62.9	57.3	56.7
82.5°	81.4	76.4	71.5	66.5	61.5	57.4	54.2	50.9	47.7	44.5	44.0
85°	45.5	41.7	38.0	34.3	30.5	28.4	27.8	27.3	26.7	26.1	25.7
87.5°	15.7	14.6	13.5	12.5	11.4	10.9	10.9	10.8	10.7	10.7	10.6
90°	0.9	1.5	2.2	2.9	3.6	4.2	4.7	5.1	5.6	6.2	6.5
92.5°	3.6	3.6	3.6	3.6	3.6	4.0	4.4	4.9	5.5	5.9	6.3
95°	15.4	13.3	11.2	9.0	7.0	5.9	5.9	6.0	6.1	6.2	6.5
97.5°	32.7	34.0	35.3	36.7	37.9	35.2	28.2	21.3	14.3	7.4	7.4
100°	45.9	47.1	48.2	49.3	50.4	46.7	38.1	29.5	20.9	12.4	11.2
102.5°	60.7	61.6	62.3	63.1	64.0	63.8	62.7	61.6	60.4	59.3	47.9
105°	84.3	84.6	85.0	85.4	85.8	86.1	86.4	86.7	87.1	87.4	87.9
107.5°	106.2	106.3	106.5	106.7	106.9	107.2	107.7	108.1	108.4	108.9	109.2
110°	121.0	121.1	121.3	121.5	121.7	122.0	122.3	122.7	123.1	123.5	123.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	135.3	135.6	135.9	136.3	136.7	136.9	137.0	137.2	137.4	137.6	137.5
115°	157.3	157.6	157.7	157.9	158.1	158.1	158.1	158.0	158.0	157.9	158.0
117.5°	177.2	177.4	177.7	178.0	178.2	178.4	178.6	178.7	178.8	179.0	179.0
120°	190.7	190.9	191.2	191.4	191.6	191.7	191.7	191.6	191.5	191.5	191.6
122.5°	203.2	203.4	203.5	203.7	203.8	203.9	204.0	204.1	204.1	204.3	204.3
125°	221.2	221.4	221.7	221.9	222.2	222.2	222.1	222.0	221.9	221.7	221.9
127.5°	238.2	238.3	238.3	238.4	238.4	238.6	238.9	239.2	239.5	239.8	239.7
130°	249.1	249.2	249.3	249.4	249.5	249.5	249.7	249.9	250.1	250.3	250.3
132.5°	259.3	259.4	259.4	259.6	259.7	259.8	260.1	260.3	260.5	260.8	260.9
135°	274.3	274.3	274.3	274.2	274.1	274.2	274.5	274.7	275.0	275.2	275.4
137.5°	287.7	287.8	287.8	287.8	287.9	288.0	288.3	288.5	288.8	289.1	289.2
140°	296.5	296.6	296.8	296.8	297.0	297.1	297.2	297.4	297.5	297.6	297.8
142.5°	304.4	304.5	304.8	305.0	305.2	305.4	305.5	305.5	305.6	305.7	305.8
145°	316.4	316.6	316.7	317.0	317.1	317.2	317.2	317.2	317.2	317.2	317.3
147.5°	325.9	326.3	326.6	327.0	327.3	327.5	327.4	327.3	327.3	327.3	327.3
150°	332.9	333.1	333.4	333.7	333.9	334.0	333.9	333.8	333.7	333.7	333.7
152.5°	338.7	338.9	339.1	339.3	339.5	339.5	339.5	339.3	339.2	339.1	339.2
155°	346.9	347.0	347.0	347.1	347.1	347.1	346.9	346.7	346.5	346.3	346.6
157.5°	353.8	353.7	353.7	353.6	353.6	353.5	353.3	353.1	352.8	352.7	353.0
160°	357.8	357.6	357.4	357.3	357.0	357.0	356.9	356.8	356.7	356.6	357.0
162.5°	361.4	361.2	360.9	360.7	360.4	360.3	360.2	360.1	360.1	360.0	360.4
165°	365.9	365.6	365.3	365.0	364.6	364.5	364.5	364.5	364.5	364.5	365.0
167.5°	369.5	369.2	368.8	368.5	368.2	368.0	368.0	368.0	367.9	367.9	368.4
170°	371.5	371.1	370.7	370.4	370.0	369.9	369.9	370.0	370.0	370.1	370.6
172.5°	372.9	372.5	372.1	371.8	371.4	371.2	371.3	371.4	371.4	371.5	371.9
175°	374.3	373.9	373.6	373.2	372.8	372.6	372.7	372.8	372.9	372.9	373.5
177.5°	375.0	374.6	374.3	373.9	373.6	373.4	373.6	373.7	373.8	373.8	374.3
180°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5	1100.5
2.5°	1096.4	1098.0	1099.6	1100.4	1100.3	1100.1	1099.9	1099.8
5°	1089.0	1090.9	1092.8	1093.5	1093.1	1092.8	1092.4	1092.0
7.5°	1074.5	1075.8	1077.0	1077.2	1076.7	1076.0	1075.5	1074.8
10°	1061.5	1062.2	1063.0	1063.0	1062.2	1061.5	1060.7	1060.0
12.5°	1045.4	1045.8	1046.3	1046.0	1045.0	1043.9	1042.8	1041.8
15°	1017.2	1016.8	1016.4	1015.6	1014.2	1012.9	1011.6	1010.3
17.5°	983.1	982.1	981.0	979.5	977.5	975.5	973.5	971.5
20°	959.3	957.7	956.2	954.3	951.9	949.4	947.0	944.6
22.5°	932.9	930.6	928.4	926.2	924.2	922.3	920.3	918.3
25°	890.2	887.0	883.8	881.3	879.4	877.6	875.7	873.8
27.5°	846.7	842.8	838.8	835.5	832.8	830.1	827.4	824.7
30°	815.6	810.9	806.2	802.3	799.4	796.4	793.4	790.4
32.5°	783.7	778.3	772.9	768.7	765.9	763.0	760.2	757.3
35°	736.3	730.0	723.7	718.7	715.4	712.0	708.6	705.3
37.5°	685.5	678.3	671.2	666.0	662.7	659.3	655.9	652.5
40°	651.6	643.7	635.9	630.3	626.9	623.5	620.2	616.8
42.5°	618.3	610.3	602.3	596.5	592.9	589.5	586.0	582.4
45°	567.3	558.1	548.9	542.6	539.2	535.9	532.5	529.2
47.5°	515.9	506.4	496.9	490.2	486.6	482.8	479.1	475.4
50°	481.8	472.5	463.0	456.6	453.0	449.5	445.9	442.4
52.5°	447.8	438.3	428.7	422.2	418.4	414.7	411.1	407.3
55°	397.6	387.9	378.2	371.5	368.0	364.4	360.8	357.3
57.5°	348.6	338.7	328.8	322.6	319.9	317.2	314.5	311.8
60°	315.9	306.2	296.4	290.0	287.1	284.1	281.1	278.1
62.5°	283.7	274.7	265.7	260.0	257.6	255.2	252.8	250.4
65°	237.5	229.5	221.4	216.3	214.0	211.8	209.5	207.3
67.5°	195.1	188.2	181.3	176.6	174.1	171.6	169.1	166.7
70°	166.3	160.1	153.9	149.9	148.1	146.2	144.3	142.4
72.5°	140.5	135.1	129.8	126.4	124.7	122.9	121.2	119.5
75°	103.5	99.2	94.8	92.1	91.0	89.9	88.7	87.6
77.5°	73.2	70.7	68.1	66.7	66.4	66.1	65.8	65.4
80°	56.2	55.6	55.1	54.7	54.5	54.3	54.1	53.9
82.5°	43.6	43.3	42.9	42.5	42.4	42.1	42.0	41.8
85°	25.3	25.0	24.6	24.4	24.4	24.4	24.4	24.4
87.5°	10.5	10.5	10.4	10.5	10.6	10.8	10.9	11.1
90°	6.9	7.3	7.7	7.9	8.0	8.2	8.2	8.4
92.5°	6.7	7.1	7.4	7.6	7.7	7.7	7.7	7.8
95°	6.9	7.3	7.7	7.8	7.9	8.0	8.1	8.1
97.5°	7.4	7.5	7.5	7.6	7.7	7.7	7.8	7.8
100°	10.2	9.1	8.1	7.6	7.7	7.7	7.8	7.8
102.5°	36.5	25.1	13.7	8.0	8.0	8.0	8.1	8.1
105°	88.5	89.0	89.6	88.7	86.5	84.3	82.0	79.8
107.5°	109.5	109.7	110.0	110.3	110.5	110.7	111.0	111.2
110°	123.7	123.8	124.0	124.1	124.3	124.5	124.7	124.8



TEST NUMBER: P332928-927

CATALOG NUMBER: SA4XXRDIP-C795D365U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	137.5	137.5	137.4	137.6	137.8	138.1	138.3	138.6
115°	158.1	158.3	158.4	158.4	158.4	158.4	158.4	158.4
117.5°	178.9	178.9	178.9	178.8	178.8	178.8	178.8	178.7
120°	191.7	191.9	192.0	192.0	191.9	191.7	191.6	191.5
122.5°	204.4	204.5	204.5	204.5	204.4	204.3	204.1	204.1
125°	222.1	222.3	222.4	222.6	222.7	222.8	222.8	222.8
127.5°	239.7	239.6	239.6	239.6	239.6	239.5	239.4	239.4
130°	250.4	250.5	250.6	250.6	250.6	250.6	250.6	250.6
132.5°	260.9	261.0	261.1	261.1	261.0	260.9	260.9	260.9
135°	275.4	275.6	275.7	275.8	275.9	276.1	276.2	276.3
137.5°	289.4	289.5	289.6	289.7	289.6	289.6	289.5	289.5
140°	297.9	298.2	298.3	298.5	298.6	298.6	298.7	298.7
142.5°	305.9	306.1	306.2	306.3	306.3	306.3	306.3	306.3
145°	317.3	317.4	317.4	317.5	317.7	317.8	317.9	318.1
147.5°	327.3	327.4	327.4	327.5	327.6	327.6	327.6	327.7
150°	333.7	333.7	333.7	333.7	333.8	333.9	333.9	334.0
152.5°	339.3	339.4	339.5	339.5	339.5	339.5	339.5	339.4
155°	346.8	347.1	347.3	347.4	347.1	347.0	346.8	346.6
157.5°	353.3	353.6	353.9	353.9	353.6	353.3	353.0	352.7
160°	357.4	357.8	358.1	358.1	357.8	357.4	357.0	356.6
162.5°	360.8	361.2	361.6	361.5	361.1	360.7	360.2	359.8
165°	365.5	366.0	366.5	366.5	365.9	365.4	364.8	364.2
167.5°	369.0	369.6	370.0	370.0	369.4	368.8	368.1	367.6
170°	371.1	371.6	372.1	372.0	371.5	370.8	370.2	369.6
172.5°	372.5	373.0	373.4	373.4	372.7	372.0	371.4	370.7
175°	374.1	374.6	375.2	375.1	374.3	373.6	372.8	372.1
177.5°	374.7	375.1	375.5	375.3	374.8	374.1	373.6	373.0
180°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3

(END OF REPORT)