

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: P333061-930

Luminaire Tested: **S124RDIW-S795D770U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333061-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIW-S795D770U930-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5122.0 lumens
Efficiency: N/A
Efficacy: 113.8 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: General Diffuse

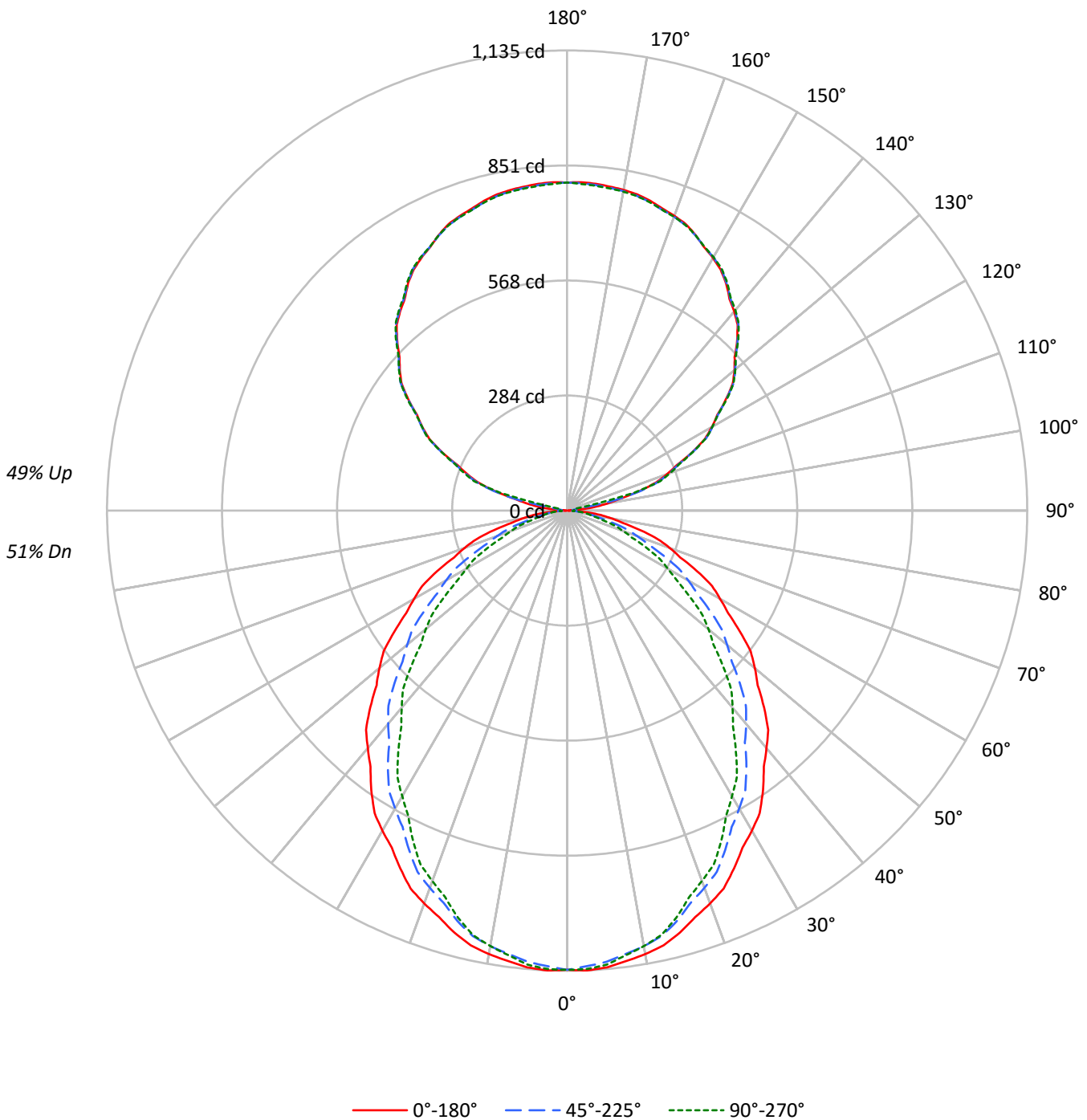
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333061-930

CATALOG NUMBER: S124RDIW-S795D770U930-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333061-930

CATALOG NUMBER: S124RDIW-S795D770U930-4F0-1E-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	0
RCR																				
0	107	107	107	107	99	99	99	99	84	84	84		70	70	70		57	57	57	51
1	98	94	90	87	91	87	84	81	74	72	70		62	60	59		51	50	49	44
2	90	82	76	71	83	76	71	67	65	61	58		55	52	50		45	43	42	37
3	82	73	66	60	76	68	61	56	58	53	49		49	45	42		40	38	36	32
4	75	65	57	51	69	60	53	48	51	46	42		43	40	36		36	33	31	27
5	69	58	50	44	64	54	47	41	46	41	36		39	35	32		33	30	27	24
6	64	52	44	38	59	48	41	36	42	36	32		35	31	28		30	26	24	21
7	59	47	39	33	54	44	37	32	38	32	28		32	28	25		27	24	21	19
8	55	43	35	30	51	40	33	28	35	29	25		30	25	22		25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	23		27	23	20		23	20	17	15
10	48	36	29	24	44	33	27	23	29	24	20		25	21	18		21	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9143	9143	9143
5°	9164	9052	9108
10°	9107	8943	8943
15°	9002	8756	8690
20°	8858	8508	8352
25°	8675	8219	8011
30°	8496	7914	7582
35°	8298	7597	7154
40°	8061	7238	6690
45°	7841	6882	6218
50°	7592	6469	5718
55°	7323	6042	5175
60°	7030	5572	4621
65°	6758	4988	4076
70°	6366	4338	3460
75°	5870	3599	2813
80°	5119	2738	2580
85°	4335	2492	2325



TEST NUMBER: P333061-930

CATALOG NUMBER: S124RDIW-S795D770U930-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.4	2.1
10°-20°	296.7	5.8
20°-30°	428.4	8.4
30°-40°	485.6	9.5
40°-50°	468.9	9.2
50°-60°	389.9	7.6
60°-70°	269.3	5.3
70°-80°	136.5	2.7
80°-90°	37.3	0.7
90°-100°	27.7	0.5
100°-110°	176.5	3.4
110°-120°	337.5	6.6
120°-130°	428.5	8.4
130°-140°	458.5	9.0
140°-150°	428.7	8.4
150°-160°	345.7	6.7
160°-170°	223.0	4.4
170°-180°	76.9	1.5
0°-30°	831.5	16.2
0°-40°	1317.1	25.7
0°-60°	2176.0	42.5
0°-90°	2619.1	51.1
90°-120°	541.7	10.6
90°-150°	1857.3	36.3
90°-180°	2503.0	48.9
0°-180°	5122.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1133	1133	1133	1133	1133	
5°	1131	1127	1117	1125	1124	107
15°	1077	1069	1048	1046	1040	303
25°	974	957	923	908	899	449
35°	842	813	771	742	726	526
45°	687	654	603	562	545	529
55°	520	484	429	386	368	465
65°	354	316	261	225	213	349
75°	188	156	115	96	90	199
85°	47	30	27	25	25	53
90°	2	8	13	17	18	4
95°	33	14	13	17	18	43
105°	182	186	189	193	172	191
115°	340	342	341	342	342	335
125°	478	480	479	481	482	427
135°	593	593	595	596	597	457
145°	684	686	686	686	688	427
155°	750	750	749	751	749	346
165°	791	788	788	792	787	223
175°	809	806	806	811	804	77
180°	809	809	809	809	809	



TEST NUMBER: P333061-930

CATALOG NUMBER: S124RDIW-S795D770U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6
2.5°	1135.4	1134.7	1134.1	1133.5	1132.9	1131.7	1130.0	1128.4	1126.7	1124.9	1126.7
5°	1130.8	1130.1	1129.3	1128.5	1127.7	1126.3	1123.9	1121.6	1119.2	1117.0	1118.9
7.5°	1120.6	1119.8	1119.0	1118.2	1117.4	1115.5	1112.5	1109.5	1106.4	1103.4	1104.6
10°	1110.9	1109.9	1109.0	1108.0	1107.0	1104.8	1101.4	1097.9	1094.5	1091.0	1091.7
12.5°	1098.4	1097.3	1096.2	1095.0	1094.0	1091.4	1087.3	1083.1	1079.0	1075.0	1075.5
15°	1077.1	1075.4	1073.6	1071.9	1070.2	1066.9	1062.0	1057.2	1052.4	1047.6	1047.2
17.5°	1051.2	1048.7	1046.2	1043.7	1041.2	1037.1	1031.3	1025.5	1019.7	1013.9	1012.8
20°	1031.1	1028.6	1026.1	1023.6	1021.1	1016.6	1010.0	1003.5	996.9	990.3	988.8
22.5°	1008.9	1006.1	1003.3	1000.5	997.7	992.7	985.7	978.7	971.7	964.7	962.4
25°	973.9	970.4	966.9	963.4	960.0	954.3	946.4	938.5	930.6	922.7	919.4
27.5°	937.1	932.8	928.4	924.1	919.7	913.3	904.8	896.4	887.9	879.5	875.5
30°	911.4	906.6	901.8	897.0	892.2	885.3	876.2	867.2	858.0	849.0	844.2
32.5°	884.4	879.0	873.5	868.0	862.7	855.2	845.9	836.5	827.1	817.7	812.2
35°	842.0	835.9	829.7	823.5	817.4	809.5	799.9	790.2	780.6	770.9	764.4
37.5°	796.8	790.4	784.1	777.7	771.4	762.9	752.2	741.5	730.8	720.2	712.8
40°	764.9	758.6	752.2	745.8	739.5	730.8	719.7	708.8	697.8	686.8	678.7
42.5°	734.3	727.7	721.1	714.4	707.7	698.6	687.2	675.7	664.3	652.8	644.6
45°	686.8	679.7	672.5	665.4	658.3	649.0	637.4	625.8	614.2	602.8	593.3
47.5°	637.7	630.4	623.1	615.6	608.3	598.6	586.6	574.5	562.6	550.5	540.7
50°	604.5	597.0	589.4	581.9	574.4	564.4	552.1	539.8	527.4	515.1	505.5
52.5°	570.5	563.1	555.7	548.4	541.0	531.0	518.4	505.7	493.1	480.5	470.7
55°	520.3	512.6	504.9	497.2	489.5	479.4	466.8	454.3	441.8	429.3	419.2
57.5°	470.8	462.7	454.7	446.7	438.6	428.4	416.1	403.8	391.5	379.1	369.0
60°	435.4	427.6	420.0	412.2	404.5	394.5	382.1	369.8	357.5	345.1	335.1
62.5°	403.4	395.4	387.4	379.4	371.4	361.0	348.4	335.7	323.1	310.5	301.2
65°	353.8	345.5	337.2	329.0	320.7	310.4	298.0	285.7	273.4	261.1	252.7
67.5°	302.3	294.4	286.4	278.5	270.5	260.9	249.4	238.0	226.5	215.1	207.9
70°	269.7	261.6	253.5	245.4	237.3	227.8	216.8	205.8	194.9	183.8	177.5
72.5°	235.1	227.7	220.4	213.0	205.7	196.9	186.5	176.1	165.8	155.4	149.9
75°	188.2	181.1	173.9	166.8	159.6	151.6	142.5	133.5	124.4	115.4	110.9
77.5°	140.6	134.6	128.6	122.5	116.4	109.7	102.5	95.1	87.8	80.5	77.9
80°	110.1	104.5	99.0	93.4	87.8	82.1	76.3	70.5	64.7	58.9	58.4
82.5°	83.8	78.7	73.5	68.4	63.3	59.0	55.8	52.4	49.1	45.8	45.3
85°	46.8	43.0	39.1	35.3	31.4	29.2	28.6	28.0	27.5	26.9	26.5
87.5°	16.3	15.4	14.4	13.5	12.6	12.1	12.2	12.2	12.3	12.4	12.4
90°	1.8	3.3	4.8	6.3	7.7	9.0	10.1	11.2	12.2	13.3	14.1
92.5°	7.7	7.7	7.8	7.8	7.9	8.6	9.6	10.7	11.7	12.8	13.6
95°	33.3	28.7	24.1	19.6	15.0	12.8	12.9	13.0	13.2	13.3	14.1
97.5°	70.7	73.5	76.4	79.2	82.1	76.0	61.0	46.0	31.0	16.0	16.1
100°	99.2	101.7	104.1	106.5	108.9	100.9	82.3	63.8	45.2	26.7	24.4
102.5°	131.2	133.0	134.8	136.6	138.3	137.9	135.6	133.1	130.7	128.3	103.6
105°	182.1	183.0	183.8	184.6	185.4	186.1	186.8	187.4	188.2	188.8	190.0
107.5°	229.5	229.9	230.3	230.7	231.1	231.8	232.7	233.6	234.5	235.4	236.0
110°	261.5	261.9	262.3	262.7	263.0	263.7	264.5	265.3	266.1	266.8	267.2



TEST NUMBER: P333061-930

CATALOG NUMBER: S124RDIW-S795D770U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	292.4	293.2	293.9	294.6	295.3	295.9	296.3	296.6	297.0	297.4	297.3
115°	340.1	340.6	341.0	341.3	341.7	341.9	341.7	341.6	341.4	341.3	341.6
117.5°	383.1	383.6	384.2	384.7	385.2	385.6	386.0	386.2	386.5	386.9	386.8
120°	412.1	412.7	413.2	413.8	414.3	414.5	414.3	414.3	414.1	413.9	414.3
122.5°	439.3	439.5	439.9	440.2	440.5	440.8	441.0	441.2	441.3	441.6	441.7
125°	478.1	478.7	479.2	479.7	480.2	480.4	480.1	479.9	479.6	479.3	479.7
127.5°	514.9	515.0	515.2	515.3	515.4	515.8	516.4	517.1	517.6	518.3	518.2
130°	538.6	538.7	538.9	539.0	539.2	539.4	539.8	540.2	540.6	541.0	541.2
132.5°	560.4	560.7	560.9	561.1	561.3	561.7	562.2	562.8	563.3	563.8	563.9
135°	593.0	593.0	592.8	592.6	592.6	592.7	593.3	593.8	594.4	594.9	595.2
137.5°	622.0	622.1	622.2	622.2	622.2	622.6	623.1	623.7	624.4	624.9	625.2
140°	640.9	641.2	641.4	641.7	642.0	642.2	642.5	642.8	643.0	643.4	643.7
142.5°	657.9	658.4	658.8	659.3	659.7	660.1	660.2	660.4	660.6	660.7	661.0
145°	683.9	684.3	684.7	685.1	685.5	685.7	685.7	685.7	685.7	685.7	685.8
147.5°	704.6	705.3	706.0	706.8	707.6	707.8	707.8	707.6	707.4	707.4	707.4
150°	719.6	720.1	720.6	721.2	721.7	721.9	721.8	721.6	721.5	721.4	721.4
152.5°	732.1	732.5	733.0	733.4	733.9	733.9	733.7	733.5	733.3	733.0	733.2
155°	749.8	750.0	750.1	750.2	750.4	750.2	749.8	749.4	749.0	748.6	749.2
157.5°	764.8	764.7	764.6	764.5	764.4	764.1	763.7	763.2	762.7	762.3	763.0
160°	773.4	773.0	772.7	772.3	771.8	771.5	771.4	771.3	771.1	771.0	771.8
162.5°	781.1	780.6	780.2	779.7	779.1	778.8	778.7	778.5	778.4	778.3	779.1
165°	791.0	790.3	789.6	789.0	788.3	788.0	788.0	788.0	788.0	788.0	789.0
167.5°	798.7	798.0	797.4	796.6	795.9	795.6	795.5	795.4	795.3	795.2	796.4
170°	803.1	802.3	801.4	800.6	799.9	799.5	799.6	799.8	799.9	800.1	801.1
172.5°	806.0	805.2	804.4	803.6	802.7	802.4	802.6	802.7	802.8	803.0	804.0
175°	809.1	808.3	807.6	806.7	805.9	805.6	805.7	805.8	806.0	806.1	807.3
177.5°	810.6	809.8	809.1	808.3	807.6	807.3	807.6	807.7	808.0	808.1	809.0
180°	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1



TEST NUMBER: P333061-930

CATALOG NUMBER: S124RDIW-S795D770U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6
2.5°	1128.4	1130.0	1131.7	1132.5	1132.4	1132.2	1132.0	1131.9
5°	1120.8	1122.7	1124.7	1125.4	1125.0	1124.7	1124.3	1123.9
7.5°	1105.9	1107.2	1108.4	1108.6	1108.1	1107.4	1106.9	1106.2
10°	1092.5	1093.2	1094.1	1094.1	1093.2	1092.5	1091.7	1091.0
12.5°	1076.0	1076.4	1076.8	1076.5	1075.5	1074.4	1073.3	1072.2
15°	1046.8	1046.4	1046.0	1045.2	1043.8	1042.4	1041.1	1039.8
17.5°	1011.8	1010.7	1009.6	1008.0	1006.0	1004.0	1001.9	999.9
20°	987.2	985.7	984.1	982.2	979.7	977.1	974.6	972.2
22.5°	960.1	957.7	955.4	953.2	951.2	949.2	947.1	945.1
25°	916.2	912.9	909.6	907.0	905.1	903.2	901.2	899.3
27.5°	871.4	867.4	863.3	859.9	857.1	854.4	851.6	848.8
30°	839.4	834.5	829.7	825.7	822.7	819.6	816.5	813.4
32.5°	806.6	801.0	795.4	791.2	788.2	785.3	782.4	779.4
35°	757.8	751.3	744.8	739.7	736.3	732.8	729.3	725.9
37.5°	705.5	698.1	690.8	685.4	682.0	678.5	675.1	671.6
40°	670.7	662.5	654.4	648.7	645.2	641.7	638.3	634.8
42.5°	636.3	628.1	619.9	613.9	610.3	606.7	603.1	599.4
45°	583.8	574.4	564.9	558.5	555.0	551.5	548.0	544.6
47.5°	530.9	521.1	511.4	504.5	500.8	496.9	493.1	489.3
50°	495.9	486.2	476.5	469.9	466.3	462.6	458.9	455.3
52.5°	460.9	451.1	441.2	434.5	430.6	426.8	423.1	419.2
55°	409.2	399.2	389.2	382.4	378.7	375.0	371.4	367.7
57.5°	358.8	348.6	338.4	332.0	329.2	326.4	323.7	320.9
60°	325.1	315.1	305.1	298.5	295.5	292.4	289.3	286.2
62.5°	292.0	282.7	273.5	267.6	265.1	262.7	260.2	257.7
65°	244.4	236.2	227.9	222.6	220.3	217.9	215.6	213.4
67.5°	200.8	193.7	186.5	181.7	179.2	176.6	174.1	171.5
70°	171.1	164.8	158.4	154.3	152.4	150.4	148.5	146.6
72.5°	144.6	139.1	133.6	130.0	128.3	126.5	124.7	122.9
75°	106.5	102.1	97.6	94.8	93.7	92.5	91.3	90.2
77.5°	75.3	72.7	70.1	68.6	68.3	68.0	67.7	67.3
80°	57.8	57.2	56.7	56.3	56.1	55.8	55.7	55.5
82.5°	44.9	44.5	44.1	43.8	43.6	43.4	43.2	43.0
85°	26.1	25.8	25.4	25.1	25.1	25.1	25.1	25.1
87.5°	12.4	12.4	12.4	12.5	12.7	13.0	13.1	13.4
90°	14.9	15.7	16.6	17.0	17.4	17.6	17.9	18.2
92.5°	14.4	15.2	16.1	16.5	16.6	16.6	16.6	16.7
95°	14.9	15.7	16.6	17.0	17.1	17.3	17.4	17.5
97.5°	16.1	16.2	16.3	16.4	16.6	16.7	16.8	17.0
100°	22.1	19.7	17.4	16.4	16.6	16.7	16.8	17.0
102.5°	79.0	54.3	29.7	17.3	17.4	17.4	17.4	17.4
105°	191.3	192.4	193.6	191.8	187.0	182.1	177.3	172.5
107.5°	236.6	237.2	237.8	238.3	238.9	239.4	239.9	240.4
110°	267.4	267.7	268.0	268.3	268.7	269.1	269.5	269.9



TEST NUMBER: P333061-930

CATALOG NUMBER: S124RDIW-S795D770U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	297.3	297.3	297.2	297.4	297.9	298.4	299.0	299.5
115°	341.9	342.1	342.4	342.5	342.5	342.5	342.5	342.5
117.5°	386.7	386.7	386.6	386.5	386.5	386.5	386.4	386.4
120°	414.5	414.7	415.0	415.0	414.7	414.5	414.3	413.9
122.5°	441.9	442.1	442.2	442.1	441.9	441.6	441.3	441.1
125°	480.1	480.5	480.9	481.2	481.4	481.4	481.6	481.8
127.5°	518.1	518.0	518.0	517.9	517.8	517.6	517.6	517.5
130°	541.3	541.4	541.6	541.6	541.6	541.6	541.6	541.6
132.5°	564.0	564.2	564.4	564.4	564.3	564.1	564.0	563.9
135°	595.4	595.7	596.0	596.2	596.5	596.8	597.0	597.3
137.5°	625.5	625.8	626.1	626.2	626.1	626.1	626.0	625.9
140°	644.1	644.5	644.9	645.2	645.3	645.5	645.6	645.7
142.5°	661.4	661.6	661.9	662.1	662.1	662.1	662.2	662.2
145°	685.9	686.1	686.2	686.4	686.6	687.0	687.2	687.5
147.5°	707.5	707.7	707.8	707.9	708.0	708.2	708.3	708.4
150°	721.4	721.4	721.4	721.5	721.6	721.7	721.9	721.9
152.5°	733.4	733.6	733.9	733.9	733.9	733.8	733.7	733.6
155°	749.7	750.2	750.7	750.8	750.4	750.0	749.6	749.3
157.5°	763.7	764.4	765.1	765.1	764.4	763.7	763.0	762.3
160°	772.7	773.4	774.2	774.2	773.4	772.7	771.8	771.0
162.5°	779.9	780.6	781.5	781.5	780.6	779.6	778.7	777.8
165°	790.1	791.2	792.2	792.2	791.0	789.8	788.6	787.3
167.5°	797.6	798.7	800.0	799.9	798.5	797.2	795.8	794.5
170°	802.2	803.3	804.4	804.2	802.9	801.5	800.2	798.8
172.5°	805.1	806.2	807.2	807.1	805.6	804.2	802.7	801.3
175°	808.5	809.8	811.0	810.7	809.1	807.6	805.9	804.3
177.5°	809.9	810.7	811.6	811.4	810.1	808.8	807.6	806.2
180°	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1

(END OF REPORT)