

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: P332315-930

Luminaire Tested: **S123RDIP-S775D805U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332315-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S775D805U930-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4996.6 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.06 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

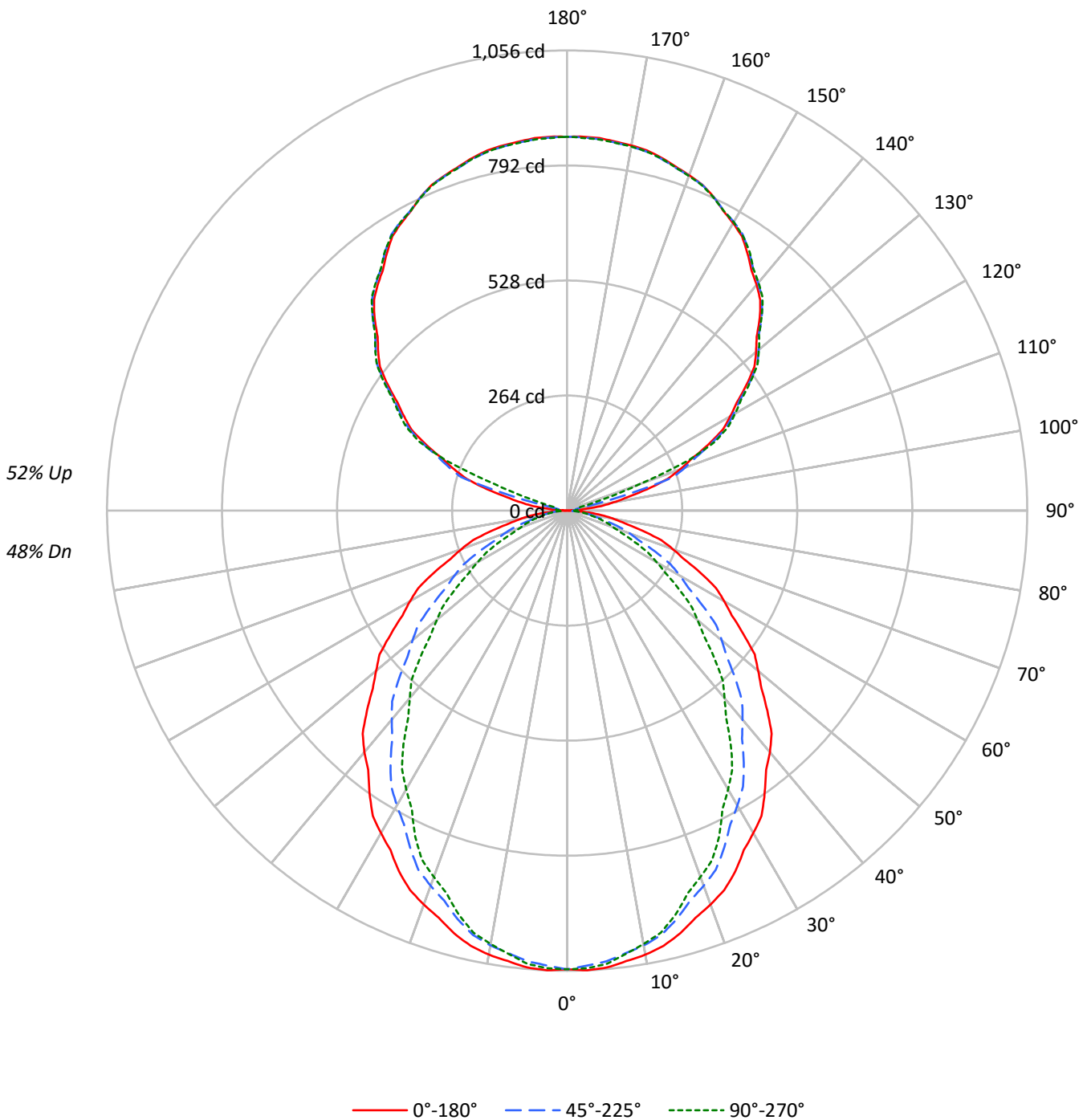
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332315-930

CATALOG NUMBER: S123RDIP-S775D805U930-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332315-930

CATALOG NUMBER: S123RDIP-S775D805U930-4F0-1E-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	50	30	10	0		
RCR																										
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48					48			
1	98	93	90	86	90	86	83	80	72	70	68	60	58	57	48	47	46					41				
2	89	82	76	71	82	76	70	66	64	60	57	53	50	48	43	41	39					35				
3	81	72	65	59	75	67	61	56	56	52	48	47	44	41	38	36	34					30				
4	75	64	56	50	68	59	53	47	50	45	41	42	38	35	34	32	29					26				
5	69	57	49	43	63	53	46	41	45	40	36	38	34	31	31	28	26					22				
6	63	51	43	38	58	48	41	36	41	35	31	34	30	27	28	25	23					20				
7	59	46	39	33	54	43	36	31	37	32	28	31	27	24	26	23	20					18				
8	54	42	35	29	50	39	33	28	34	28	25	29	24	21	24	21	18					16				
9	51	39	31	26	47	36	29	25	31	26	22	26	22	19	22	19	17					14				
10	47	35	28	24	44	33	27	22	29	23	20	24	20	18	20	17	15					13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11330	11330	11330
5°	11373	11217	11282
10°	11309	11075	11038
15°	11188	10816	10702
20°	11021	10493	10247
25°	10849	10128	9804
30°	10621	9708	9178
35°	10387	9289	8604
40°	10172	8792	7893
45°	9889	8304	7252
50°	9577	7748	6532
55°	9259	7112	5863
60°	8968	6433	5126
65°	8588	5695	4391
70°	8113	4784	3547
75°	7419	3764	3335
80°	6614	3335	3068
85°	5582	2952	2742



TEST NUMBER: P332315-930

CATALOG NUMBER: S123RDIP-S775D805U930-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.8	2.0
10°-20°	275.0	5.5
20°-30°	396.0	7.9
30°-40°	446.1	8.9
40°-50°	426.7	8.5
50°-60°	349.5	7.0
60°-70°	235.8	4.7
70°-80°	118.6	2.4
80°-90°	33.8	0.7
90°-100°	31.2	0.6
100°-110°	148.7	3.0
110°-120°	357.1	7.1
120°-130°	454.7	9.1
130°-140°	485.8	9.7
140°-150°	454.3	9.1
150°-160°	366.5	7.3
160°-170°	236.5	4.7
170°-180°	81.5	1.6
0°-30°	769.9	15.4
0°-40°	1215.9	24.3
0°-60°	1992.1	39.9
0°-90°	2380.3	47.6
90°-120°	536.9	10.7
90°-150°	1931.8	38.7
90°-180°	2616.0	52.4
0°-180°	4996.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1053	1048	1038	1045	1044	100
15°	1004	994	971	966	960	283
25°	914	891	853	835	826	420
35°	790	759	707	671	655	495
45°	650	610	546	498	476	501
55°	493	450	379	331	312	442
65°	337	289	224	184	172	334
75°	178	137	90	82	80	190
85°	45	27	24	22	22	51
90°	1	7	15	18	19	4
95°	39	15	20	24	24	48
105°	190	193	140	33	28	201
115°	356	360	366	372	375	352
125°	502	507	510	511	512	448
135°	625	629	632	633	632	481
145°	722	726	727	728	729	451
155°	795	794	794	797	794	366
165°	838	836	836	840	836	237
175°	858	855	855	859	855	82
180°	858	858	858	858	858	



TEST NUMBER: P332315-930

CATALOG NUMBER: S123RDIP-S775D805U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6
2.5°	1056.0	1055.4	1054.8	1054.2	1053.6	1052.4	1050.5	1048.7	1046.9	1045.1	1046.8
5°	1052.6	1051.7	1050.7	1049.8	1048.8	1047.2	1044.9	1042.6	1040.3	1038.1	1039.8
7.5°	1042.8	1041.9	1040.8	1039.8	1038.8	1036.7	1033.8	1030.9	1027.9	1024.9	1025.9
10°	1034.7	1033.3	1032.0	1030.7	1029.3	1027.0	1023.5	1020.2	1016.8	1013.3	1013.5
12.5°	1023.0	1021.6	1020.1	1018.6	1017.2	1014.3	1010.2	1006.0	1001.8	997.6	997.5
15°	1004.0	1001.8	999.7	997.7	995.6	991.9	986.6	981.3	975.9	970.6	969.7
17.5°	979.8	977.5	975.0	972.6	970.1	965.6	958.8	952.0	945.3	938.6	936.5
20°	962.1	959.0	956.0	953.0	950.0	944.9	937.6	930.4	923.2	916.0	913.5
22.5°	942.3	938.8	935.3	931.8	928.3	922.8	915.1	907.4	899.8	892.1	889.0
25°	913.5	908.7	903.9	899.2	894.5	887.7	879.0	870.3	861.5	852.8	848.8
27.5°	878.4	873.2	868.0	862.7	857.5	850.0	840.3	830.6	820.8	811.1	805.6
30°	854.5	848.8	843.2	837.5	831.8	823.6	813.0	802.3	791.7	781.1	774.7
32.5°	830.6	824.2	817.7	811.3	804.9	796.0	784.7	773.6	762.3	751.1	744.0
35°	790.5	783.7	776.8	770.1	763.2	753.9	742.2	730.3	718.6	706.9	698.7
37.5°	749.9	742.2	734.7	727.1	719.5	709.5	696.9	684.4	671.8	659.3	650.0
40°	723.9	715.6	707.2	698.9	690.6	679.6	666.2	652.7	639.2	625.7	615.9
42.5°	694.6	686.2	677.8	669.5	661.2	650.0	636.1	622.2	608.3	594.4	583.6
45°	649.6	641.2	632.6	624.0	615.5	604.0	589.3	574.7	560.1	545.5	534.7
47.5°	604.8	595.4	586.0	576.7	567.3	555.3	540.7	526.0	511.4	496.8	485.1
50°	571.9	563.0	554.2	545.2	536.3	524.2	508.8	493.4	478.1	462.7	450.9
52.5°	542.6	533.0	523.3	513.6	503.9	491.5	476.2	461.1	445.8	430.6	418.4
55°	493.4	484.1	474.8	465.5	456.2	443.5	427.4	411.3	395.2	379.0	368.0
57.5°	448.0	437.9	427.8	417.6	407.5	394.4	378.1	361.9	345.7	329.5	319.1
60°	416.6	406.2	395.7	385.3	374.9	361.7	346.0	330.3	314.5	298.8	288.5
62.5°	385.1	374.7	364.3	353.8	343.5	330.4	314.6	298.9	283.2	267.3	257.7
65°	337.2	326.8	316.3	305.9	295.5	282.8	268.1	253.2	238.5	223.6	214.3
67.5°	289.3	278.7	268.2	257.6	247.0	234.6	220.5	206.3	192.1	177.9	171.0
70°	257.8	247.6	237.3	227.1	216.9	205.0	191.8	178.6	165.3	152.0	145.3
72.5°	226.4	216.3	206.2	196.1	186.1	175.0	162.9	150.8	138.8	126.7	121.2
75°	178.4	169.3	160.2	151.1	142.0	132.2	121.8	111.4	100.9	90.5	88.6
77.5°	134.7	126.5	118.2	110.0	101.7	94.3	87.6	80.9	74.2	67.4	66.4
80°	106.7	98.9	91.2	83.4	75.6	69.7	65.7	61.7	57.8	53.8	53.2
82.5°	80.1	73.4	66.6	59.9	53.2	48.9	47.0	45.2	43.4	41.5	40.9
85°	45.2	41.1	36.9	32.7	28.5	26.2	25.6	25.0	24.5	23.9	23.6
87.5°	16.6	15.2	13.8	12.4	11.0	10.4	10.8	11.2	11.6	11.9	11.9
90°	0.7	2.0	3.5	4.9	6.3	7.9	9.8	11.6	13.5	15.3	15.9
92.5°	11.8	11.5	11.1	10.7	10.3	10.8	12.1	13.5	14.9	16.3	17.2
95°	38.9	33.1	27.2	21.4	15.7	13.5	15.1	16.6	18.2	19.7	20.8
97.5°	78.1	75.6	73.0	70.4	67.8	61.3	51.1	40.9	30.7	20.5	21.7
100°	107.7	110.6	113.4	116.2	119.0	109.4	87.3	65.2	43.1	21.0	22.2
102.5°	141.4	143.4	145.4	147.5	149.5	138.5	114.4	90.2	66.0	41.9	38.4
105°	190.0	191.5	193.1	194.6	196.2	190.6	177.8	165.1	152.3	139.6	114.5
107.5°	241.2	242.5	243.7	244.9	246.1	247.8	249.8	251.8	253.8	255.8	237.5
110°	275.3	276.5	277.6	278.8	279.9	281.2	282.8	284.4	285.9	287.5	282.8



TEST NUMBER: P332315-930

CATALOG NUMBER: S123RDIP-S775D805U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	308.0	309.0	310.1	311.0	312.1	313.3	315.0	316.5	318.0	319.6	319.7
115°	356.3	357.2	358.0	358.9	359.7	360.8	362.1	363.3	364.6	365.9	367.3
117.5°	403.1	404.1	405.2	406.3	407.2	408.1	408.8	409.4	410.1	410.7	411.9
120°	432.2	433.4	434.7	435.9	437.2	438.1	438.5	439.0	439.4	439.8	440.9
122.5°	461.7	462.8	463.8	464.9	465.9	466.7	467.2	467.8	468.3	468.9	469.7
125°	502.3	503.4	504.5	505.6	506.8	507.7	508.3	508.7	509.3	509.9	510.2
127.5°	541.5	542.7	543.8	544.9	546.1	547.0	547.6	548.4	549.0	549.7	550.2
130°	566.0	567.1	568.3	569.4	570.5	571.4	571.9	572.5	573.1	573.6	574.2
132.5°	589.5	590.6	591.7	592.9	594.0	594.8	595.3	595.7	596.1	596.6	597.2
135°	625.3	626.1	627.0	627.9	628.7	629.4	630.0	630.6	631.1	631.7	632.1
137.5°	655.9	657.0	658.0	659.1	660.1	660.9	661.2	661.5	661.8	662.1	662.8
140°	676.3	677.1	678.0	678.8	679.7	680.3	680.8	681.2	681.6	682.0	682.6
142.5°	695.1	696.0	696.8	697.7	698.5	699.2	699.6	700.0	700.4	700.9	701.3
145°	721.5	722.5	723.5	724.5	725.5	726.1	726.4	726.7	727.0	727.2	727.6
147.5°	746.4	747.1	747.7	748.4	749.0	749.5	749.7	750.0	750.3	750.6	750.9
150°	761.7	762.1	762.5	763.0	763.4	763.8	764.0	764.3	764.6	764.9	765.2
152.5°	775.4	775.7	775.8	776.1	776.2	776.4	776.6	776.7	777.0	777.1	777.6
155°	794.8	794.6	794.3	794.0	793.7	793.6	793.8	793.9	794.0	794.2	794.9
157.5°	809.8	809.8	809.8	809.8	809.8	809.7	809.5	809.4	809.3	809.1	810.0
160°	819.0	818.9	818.8	818.6	818.5	818.3	818.2	818.1	817.9	817.7	818.6
162.5°	827.7	827.4	827.0	826.6	826.2	826.0	825.8	825.7	825.6	825.4	826.4
165°	838.2	837.7	837.3	836.9	836.5	836.2	836.1	835.9	835.8	835.6	836.7
167.5°	846.4	845.8	845.2	844.7	844.1	843.8	843.8	843.8	843.8	843.8	844.9
170°	850.9	850.4	849.8	849.2	848.6	848.4	848.4	848.4	848.4	848.4	849.5
172.5°	853.9	853.3	852.6	851.9	851.3	851.0	851.1	851.2	851.3	851.4	852.6
175°	857.9	857.2	856.6	855.8	855.1	854.8	854.9	855.1	855.2	855.4	856.4
177.5°	858.9	858.4	857.9	857.3	856.7	856.5	856.6	856.7	856.8	856.9	857.9
180°	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9



TEST NUMBER: P332315-930

CATALOG NUMBER: S123RDIP-S775D805U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6
2.5°	1048.4	1050.1	1051.7	1052.5	1052.1	1051.8	1051.5	1051.2
5°	1041.5	1043.2	1044.9	1045.5	1045.2	1044.8	1044.4	1044.1
7.5°	1026.9	1027.8	1028.7	1028.9	1028.3	1027.6	1027.0	1026.3
10°	1013.7	1013.9	1014.1	1013.7	1012.8	1011.8	1010.9	1009.9
12.5°	997.4	997.3	997.2	996.5	995.5	994.3	993.3	992.1
15°	968.7	967.8	966.9	965.7	964.4	963.0	961.7	960.4
17.5°	934.5	932.5	930.5	928.5	926.5	924.5	922.6	920.6
20°	911.1	908.6	906.1	903.8	901.5	899.2	896.9	894.6
22.5°	886.0	882.9	879.8	877.2	875.1	872.9	870.8	868.7
25°	844.9	840.9	836.9	833.9	831.8	829.6	827.6	825.5
27.5°	800.1	794.6	789.0	784.6	781.5	778.3	775.1	771.9
30°	768.3	761.7	755.3	750.6	747.5	744.5	741.4	738.4
32.5°	736.9	729.9	722.8	717.7	714.5	711.3	708.2	705.0
35°	690.6	682.4	674.3	668.5	665.0	661.6	658.2	654.8
37.5°	640.7	631.4	622.2	615.5	611.2	607.0	602.8	598.6
40°	606.0	596.1	586.3	579.2	574.8	570.5	566.1	561.7
42.5°	572.7	562.0	551.2	543.9	540.0	536.1	532.1	528.2
45°	523.9	513.1	502.2	494.6	490.0	485.4	480.9	476.4
47.5°	473.3	461.5	449.8	441.9	437.8	433.7	429.7	425.7
50°	439.2	427.4	415.6	407.6	403.2	398.8	394.5	390.1
52.5°	406.2	394.0	381.7	373.7	369.7	365.8	361.9	358.0
55°	357.0	346.0	335.0	327.6	323.8	320.0	316.3	312.4
57.5°	308.8	298.3	288.0	281.1	277.9	274.7	271.4	268.2
60°	278.3	268.1	257.8	251.1	247.9	244.6	241.4	238.1
62.5°	248.1	238.5	228.9	222.3	218.9	215.6	212.2	208.8
65°	205.0	195.8	186.5	180.8	178.7	176.6	174.6	172.4
67.5°	164.0	157.1	150.1	145.5	143.3	141.0	138.8	136.6
70°	138.7	132.0	125.4	121.1	119.0	116.8	114.8	112.7
72.5°	115.9	110.4	105.0	101.8	100.9	100.1	99.2	98.3
75°	86.7	84.8	82.9	81.8	81.4	81.0	80.6	80.2
77.5°	65.4	64.3	63.3	62.6	62.3	61.9	61.5	61.1
80°	52.7	52.1	51.5	51.0	50.6	50.3	49.9	49.5
82.5°	40.4	39.8	39.2	38.9	38.8	38.7	38.6	38.6
85°	23.2	22.7	22.4	22.2	22.2	22.2	22.2	22.2
87.5°	11.8	11.8	11.8	11.7	11.7	11.5	11.4	11.3
90°	16.5	17.0	17.5	18.0	18.3	18.6	18.8	19.2
92.5°	18.1	19.0	20.0	20.5	20.6	20.8	21.0	21.2
95°	21.8	22.7	23.7	24.2	24.2	24.2	24.2	24.2
97.5°	22.8	23.9	25.0	25.7	25.8	26.0	26.1	26.3
100°	23.3	24.5	25.6	26.2	26.3	26.5	26.7	26.7
102.5°	34.9	31.4	27.9	26.3	26.5	26.7	27.0	27.3
105°	89.4	64.4	39.3	26.9	27.2	27.5	27.8	28.0
107.5°	219.1	200.7	182.3	163.6	144.8	125.9	107.0	88.1
110°	278.1	273.5	268.8	256.3	236.0	215.8	195.5	175.3



TEST NUMBER: P332315-930

CATALOG NUMBER: S123RDIP-S775D805U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	319.8	319.8	319.9	317.8	313.6	309.2	305.0	300.8
115°	368.7	370.1	371.5	372.5	373.1	373.7	374.2	374.8
117.5°	413.0	414.2	415.2	415.9	416.0	416.1	416.2	416.4
120°	442.1	443.2	444.3	444.9	444.9	444.9	444.9	444.9
122.5°	470.4	471.2	472.1	472.5	472.6	472.7	472.9	473.0
125°	510.5	510.8	511.0	511.4	511.6	511.9	512.2	512.5
127.5°	550.6	551.1	551.5	551.5	551.3	551.1	550.7	550.5
130°	574.8	575.4	575.9	576.1	575.8	575.5	575.2	574.9
132.5°	597.7	598.3	598.8	598.9	598.6	598.2	597.8	597.4
135°	632.5	632.9	633.3	633.3	632.9	632.5	632.1	631.7
137.5°	663.5	664.1	664.9	665.0	664.8	664.5	664.2	663.9
140°	683.1	683.7	684.3	684.4	684.1	683.9	683.5	683.3
142.5°	701.8	702.2	702.7	702.7	702.3	701.9	701.6	701.2
145°	727.8	728.1	728.4	728.6	728.6	728.6	728.6	728.6
147.5°	751.1	751.5	751.7	751.5	750.9	750.2	749.6	748.9
150°	765.4	765.7	766.0	766.0	765.5	765.1	764.7	764.3
152.5°	778.1	778.6	779.2	779.1	778.4	777.8	777.1	776.5
155°	795.7	796.3	797.0	797.0	796.1	795.2	794.4	793.5
157.5°	810.8	811.6	812.5	812.4	811.3	810.2	809.1	808.0
160°	819.5	820.4	821.2	821.1	820.1	819.1	818.2	817.2
162.5°	827.4	828.3	829.2	829.3	828.4	827.5	826.7	825.8
165°	837.9	839.0	840.2	840.2	839.3	838.2	837.2	836.3
167.5°	846.0	847.2	848.3	848.3	847.2	846.0	844.9	843.8
170°	850.6	851.7	852.9	852.9	851.7	850.6	849.5	848.4
172.5°	853.7	854.8	856.0	855.9	854.7	853.5	852.2	850.9
175°	857.4	858.3	859.3	859.2	858.2	857.0	855.9	854.8
177.5°	858.8	859.7	860.5	860.5	859.3	858.2	857.0	855.9
180°	857.9	857.9	857.9	857.9	857.9	857.9	857.9	857.9

(END OF REPORT)