

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: P332317-927

Luminaire Tested: **S123RDIP-S775D805U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332317-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S775D805U927-4F0-1E-UDD-F4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4614.7 lumens
Efficiency: N/A
Efficacy: 100.5 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

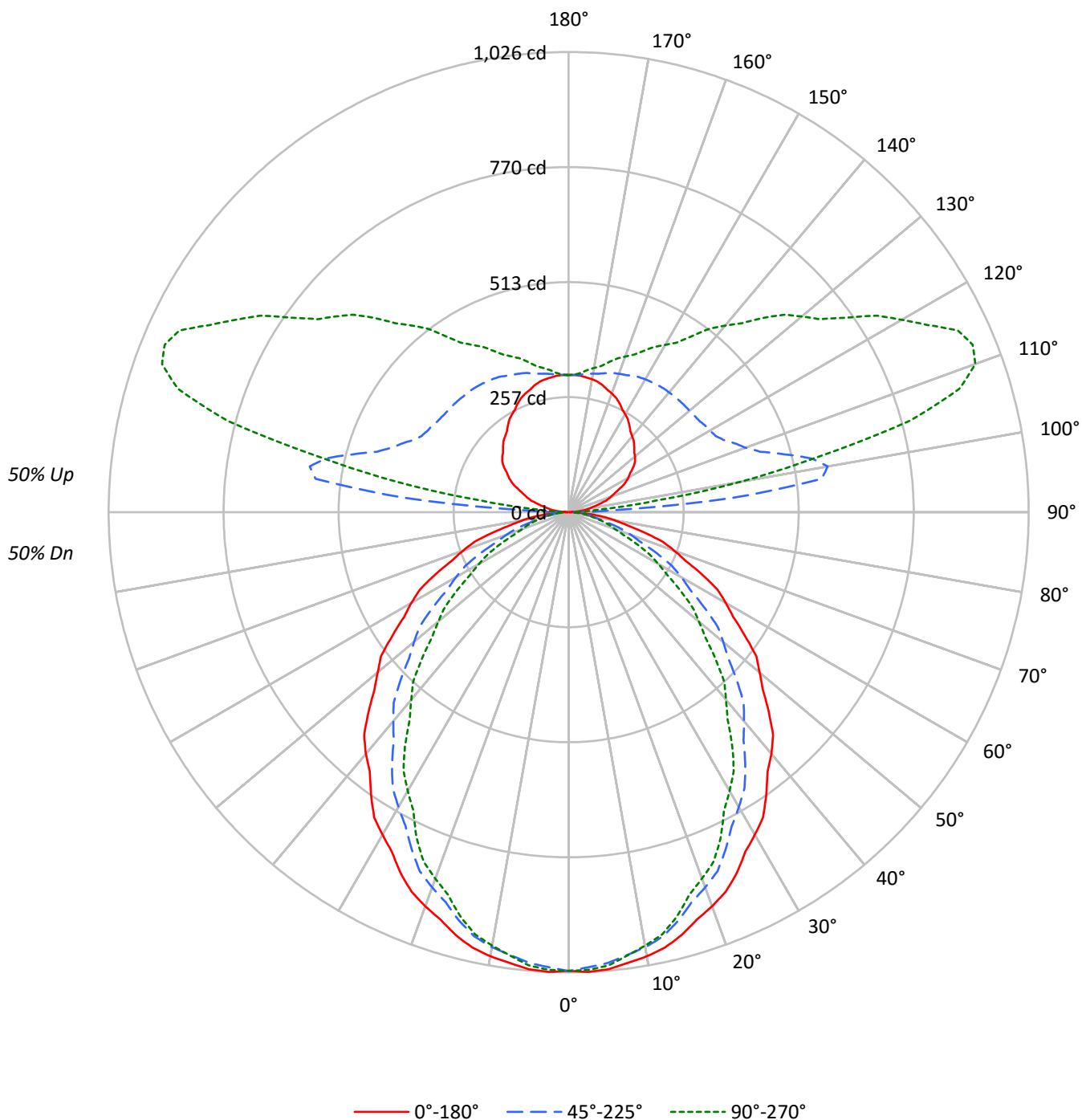
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332317-927

CATALOG NUMBER: S123RDIP-S775D805U927-4F0-1E-UDD-F4

Luminous Intensity Polar Plot



TEST NUMBER: P332317-927

CATALOG NUMBER: S123RDIP-S775D805U927-4F0-1E-UDD-F4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	107	107	107	107	99	99	99	99	83	83	83		69	69	69		56
1	98	94	90	87	90	87	84	81	74	71	69		61	60	58		50
2	90	82	76	71	82	76	71	67	65	61	58		54	52	49		45
3	82	73	66	60	75	67	61	56	57	53	49		48	45	42		40
4	75	65	57	51	69	60	53	48	51	46	42		43	39	36		36
5	69	58	50	44	64	54	47	41	46	41	36		39	35	32		32
6	64	52	44	38	59	48	41	36	42	36	32		35	31	28		29
7	59	47	39	34	54	44	37	32	38	32	28		32	28	25		27
8	55	43	35	30	51	40	33	28	34	29	25		29	25	22		25
9	51	39	32	27	47	36	30	25	32	26	23		27	23	20		23
10	48	36	29	24	44	34	27	23	29	24	20		25	21	18		21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11009	11009	11009
5°	11051	10899	10962
10°	10989	10762	10726
15°	10871	10510	10399
20°	10709	10195	9958
25°	10542	9841	9526
30°	10320	9434	8918
35°	10093	9025	8360
40°	9884	8543	7669
45°	9608	8068	7046
50°	9306	7529	6348
55°	8997	6912	5697
60°	8714	6250	4982
65°	8344	5535	4266
70°	7884	4648	3446
75°	7207	3656	3244
80°	6428	3242	2982
85°	5434	2865	2655

TEST NUMBER: P332317-927

CATALOG NUMBER: S123RDIP-S775D805U927-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	2.1
10°-20°	267.2	5.8
20°-30°	384.8	8.3
30°-40°	433.4	9.4
40°-50°	414.6	9.0
50°-60°	339.6	7.4
60°-70°	229.1	5.0
70°-80°	115.3	2.5
80°-90°	32.9	0.7
90°-100°	170.3	3.7
100°-110°	482.1	10.4
110°-120°	474.3	10.3
120°-130°	378.3	8.2
130°-140°	298.3	6.5
140°-150°	222.6	4.8
150°-160°	155.2	3.4
160°-170°	91.2	2.0
170°-180°	29.7	0.6
0°-30°	748.0	16.2
0°-40°	1181.5	25.6
0°-60°	1935.6	41.9
0°-90°	2312.8	50.1
90°-120°	1126.7	24.4
90°-150°	2025.9	43.9
90°-180°	2302.0	49.9
0°-180°	4614.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1023	1023	1023	1023	1023	
5°	1023	1018	1009	1016	1014	97
15°	976	966	943	939	933	275
25°	888	866	829	812	802	408
35°	768	737	687	652	636	481
45°	631	592	530	484	463	487
55°	479	437	368	322	304	430
65°	328	281	217	178	168	324
75°	173	133	88	80	78	185
85°	44	27	23	22	22	49
90°	1	7	15	17	18	4
95°	21	68	367	107	72	23
105°	72	106	498	871	788	76
115°	127	158	381	835	958	126
125°	176	208	356	644	756	157
135°	207	247	350	530	612	160
145°	236	270	346	435	479	148
155°	268	289	335	381	397	123
165°	293	301	321	340	346	83
175°	305	306	308	312	312	29
180°	306	306	306	306	306	

TEST NUMBER: P332317-927

CATALOG NUMBER: S123RDIP-S775D805U927-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8
2.5°	1026.0	1025.5	1024.8	1024.3	1023.7	1022.5	1020.7	1019.0	1017.2	1015.4	1017.1
5°	1022.8	1021.8	1020.9	1020.0	1019.1	1017.5	1015.3	1013.0	1010.8	1008.7	1010.3
7.5°	1013.3	1012.3	1011.3	1010.3	1009.3	1007.3	1004.5	1001.6	998.8	995.9	996.8
10°	1005.4	1004.0	1002.7	1001.5	1000.1	997.8	994.5	991.3	987.9	984.6	984.8
12.5°	994.0	992.6	991.2	989.8	988.3	985.6	981.5	977.5	973.4	969.3	969.2
15°	975.5	973.4	971.4	969.4	967.3	963.8	958.6	953.5	948.2	943.1	942.2
17.5°	952.0	949.7	947.4	945.0	942.6	938.2	931.6	925.0	918.5	912.0	910.0
20°	934.9	931.8	928.9	926.0	923.1	918.1	911.0	904.0	897.1	890.0	887.6
22.5°	915.6	912.2	908.8	905.4	902.0	896.6	889.1	881.7	874.3	866.8	863.8
25°	887.6	883.0	878.3	873.7	869.1	862.5	854.1	845.6	837.1	828.6	824.7
27.5°	853.5	848.4	843.4	838.3	833.2	825.9	816.5	807.1	797.6	788.1	782.8
30°	830.3	824.7	819.3	813.7	808.2	800.3	790.0	779.6	769.3	759.0	752.7
32.5°	807.1	800.8	794.6	788.3	782.0	773.4	762.5	751.6	740.7	729.8	722.9
35°	768.1	761.4	754.8	748.2	741.6	732.5	721.1	709.6	698.2	686.8	678.9
37.5°	728.6	721.2	713.8	706.5	699.1	689.4	677.2	665.0	652.8	640.6	631.5
40°	703.4	695.3	687.1	679.1	671.0	660.4	647.3	634.2	621.1	608.0	598.4
42.5°	674.9	666.8	658.6	650.5	642.5	631.6	618.1	604.5	591.0	577.5	567.0
45°	631.2	623.0	614.7	606.3	598.0	586.8	572.6	558.4	544.2	530.0	519.5
47.5°	587.6	578.5	569.4	560.3	551.2	539.6	525.4	511.1	496.9	482.8	471.3
50°	555.7	547.1	538.4	529.7	521.1	509.3	494.4	479.4	464.5	449.6	438.2
52.5°	527.2	517.8	508.4	499.0	489.6	477.5	462.7	448.0	433.2	418.4	406.5
55°	479.4	470.4	461.4	452.3	443.3	430.9	415.3	399.7	384.0	368.3	357.6
57.5°	435.3	425.5	415.7	405.8	395.9	383.2	367.4	351.6	335.9	320.2	310.1
60°	404.8	394.7	384.5	374.4	364.2	351.5	336.2	320.9	305.6	290.3	280.4
62.5°	374.2	364.1	353.9	343.8	333.7	321.0	305.7	290.4	275.1	259.8	250.4
65°	327.6	317.5	307.4	297.2	287.1	274.8	260.5	246.1	231.7	217.3	208.3
67.5°	281.1	270.8	260.5	250.3	240.0	228.0	214.2	200.4	186.6	172.9	166.1
70°	250.5	240.6	230.6	220.6	210.7	199.2	186.3	173.5	160.6	147.7	141.2
72.5°	220.0	210.2	200.3	190.5	180.8	170.0	158.3	146.6	134.8	123.1	117.8
75°	173.3	164.5	155.7	146.8	138.0	128.5	118.4	108.2	98.1	87.9	86.1
77.5°	130.9	122.9	114.9	106.9	98.9	91.7	85.1	78.6	72.1	65.5	64.6
80°	103.7	96.1	88.6	81.0	73.4	67.7	63.8	60.0	56.2	52.3	51.7
82.5°	77.8	71.3	64.7	58.2	51.7	47.5	45.7	43.9	42.1	40.3	39.8
85°	44.0	39.9	35.9	31.8	27.7	25.4	24.9	24.3	23.8	23.2	22.9
87.5°	16.2	14.8	13.4	12.2	10.8	10.2	10.6	11.0	11.3	11.7	11.5
90°	1.3	2.5	3.7	5.5	6.8	8.1	9.9	11.8	13.6	15.4	14.9
92.5°	7.7	11.4	16.6	21.5	26.6	35.8	52.0	78.7	104.8	95.2	71.9
95°	21.1	22.9	29.7	40.2	56.3	80.5	133.2	225.5	327.0	367.3	297.9
97.5°	35.9	36.5	41.9	51.0	66.9	93.0	143.3	247.4	416.7	569.2	609.0
100°	45.9	46.4	50.8	59.5	74.3	98.5	141.8	233.5	396.4	586.5	708.5
102.5°	56.2	57.4	61.2	69.4	82.8	104.9	143.8	221.6	366.6	554.3	713.5
105°	71.9	73.7	77.4	84.8	96.6	115.8	149.2	213.0	330.1	498.0	675.7
107.5°	88.4	90.3	93.9	101.2	112.3	130.1	159.4	212.5	306.8	448.1	609.6
110°	100.4	102.2	105.3	112.1	122.6	140.0	167.9	214.9	297.9	419.9	567.9

TEST NUMBER: P332317-927

CATALOG NUMBER: S123RDIP-S775D805U927-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	111.2	113.1	116.2	123.0	133.6	150.4	176.3	219.8	292.9	401.1	531.8
115°	127.0	129.4	133.2	139.3	149.9	166.6	190.1	227.9	291.1	380.9	488.1
117.5°	142.7	145.5	148.6	154.3	166.1	181.6	204.9	238.6	292.2	369.0	461.7
120°	153.6	155.4	158.5	164.8	176.5	192.0	214.3	246.5	294.2	363.5	447.8
122.5°	163.0	164.9	167.9	174.7	185.9	202.4	224.2	253.9	297.6	360.1	436.4
125°	176.5	177.8	181.5	188.3	200.0	216.7	238.4	265.7	302.9	355.5	421.8
127.5°	186.8	188.6	193.2	200.2	213.2	229.9	250.8	275.4	308.8	353.3	408.9
130°	193.2	195.1	200.7	208.1	221.1	237.8	258.3	281.8	312.8	351.8	402.0
132.5°	198.2	200.6	206.6	215.6	228.5	244.8	264.7	287.7	315.8	351.3	395.5
135°	206.8	209.4	216.2	225.5	238.4	255.2	274.3	295.4	320.2	350.5	387.1
137.5°	215.0	217.6	224.3	234.2	247.1	262.6	281.1	301.1	323.2	349.2	379.8
140°	220.5	223.6	229.8	239.7	252.1	267.5	285.5	304.1	325.2	348.7	375.3
142.5°	226.4	229.0	235.8	244.6	257.1	271.5	289.0	307.0	326.6	347.7	371.4
145°	236.0	237.8	243.4	252.7	263.2	277.5	293.6	310.3	327.6	346.2	366.1
147.5°	245.7	246.8	252.2	260.2	270.4	282.6	297.3	312.3	327.6	343.9	360.8
150°	252.1	252.7	257.6	265.7	274.3	285.5	299.8	312.8	327.6	341.9	357.4
152.5°	258.5	258.6	263.6	270.7	278.3	289.0	301.3	313.8	326.1	339.4	353.4
155°	268.2	268.2	271.9	278.1	284.9	293.6	304.1	314.0	324.6	335.1	347.5
157.5°	275.8	276.3	279.3	284.8	290.6	297.3	305.7	314.7	322.4	331.2	340.8
160°	281.8	281.8	284.3	289.2	293.6	299.8	307.2	314.7	321.5	328.3	336.3
162.5°	286.3	286.3	288.3	292.2	296.0	301.3	307.7	314.1	319.5	325.3	331.8
165°	292.9	292.3	293.6	296.7	299.1	303.5	308.4	312.8	316.5	320.8	325.7
167.5°	298.0	297.3	297.9	300.2	302.0	304.8	308.3	311.8	313.5	316.4	320.0
170°	301.0	299.8	300.4	302.2	303.5	304.8	307.8	310.3	311.6	313.4	316.5
172.5°	303.0	302.2	302.4	303.7	304.4	305.2	307.8	309.8	310.1	310.9	313.0
175°	305.3	304.8	304.1	305.3	305.3	305.9	307.2	308.4	307.8	307.8	309.0
177.5°	306.4	305.9	305.5	305.9	305.9	305.9	306.4	307.4	306.4	305.9	306.4
180°	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9

TEST NUMBER: P332317-927

CATALOG NUMBER: S123RDIP-S775D805U927-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8	1022.8
2.5°	1018.7	1020.3	1021.9	1022.6	1022.3	1022.0	1021.7	1021.4
5°	1011.9	1013.6	1015.3	1015.9	1015.6	1015.2	1014.8	1014.5
7.5°	997.8	998.6	999.6	999.7	999.1	998.5	997.8	997.2
10°	985.0	985.2	985.3	985.0	984.0	983.1	982.2	981.3
12.5°	969.1	969.0	968.9	968.3	967.3	966.1	965.1	964.0
15°	941.3	940.3	939.4	938.3	937.1	935.7	934.5	933.2
17.5°	908.0	906.1	904.1	902.2	900.2	898.3	896.4	894.5
20°	885.3	882.8	880.4	878.1	875.9	873.7	871.5	869.3
22.5°	860.9	857.9	854.8	852.3	850.2	848.2	846.1	844.1
25°	820.9	817.1	813.2	810.2	808.2	806.1	804.1	802.1
27.5°	777.4	772.1	766.7	762.4	759.3	756.2	753.1	750.0
30°	746.5	740.1	733.9	729.3	726.4	723.4	720.4	717.5
32.5°	716.1	709.2	702.3	697.4	694.3	691.2	688.1	685.0
35°	671.0	663.1	655.1	649.5	646.2	642.9	639.5	636.2
37.5°	622.5	613.5	604.5	598.0	593.9	589.8	585.7	581.6
40°	588.8	579.2	569.7	562.8	558.5	554.3	550.0	545.8
42.5°	556.5	546.1	535.6	528.5	524.7	520.9	517.1	513.3
45°	509.1	498.5	488.0	480.5	476.1	471.7	467.3	462.9
47.5°	459.9	448.5	437.0	429.4	425.4	421.4	417.6	413.6
50°	426.7	415.3	403.9	396.0	391.8	387.5	383.3	379.1
52.5°	394.7	382.8	370.9	363.1	359.3	355.5	351.6	347.8
55°	346.9	336.2	325.5	318.3	314.7	310.9	307.3	303.6
57.5°	300.0	289.9	279.8	273.1	270.1	266.9	263.7	260.6
60°	270.4	260.5	250.5	244.0	240.8	237.7	234.6	231.4
62.5°	241.1	231.7	222.4	216.0	212.7	209.5	206.2	202.9
65°	199.2	190.2	181.2	175.6	173.6	171.6	169.6	167.5
67.5°	159.4	152.7	145.8	141.4	139.3	137.0	134.9	132.7
70°	134.8	128.3	121.8	117.6	115.6	113.5	111.5	109.5
72.5°	112.6	107.3	102.0	98.9	98.1	97.3	96.4	95.5
75°	84.2	82.4	80.6	79.5	79.1	78.7	78.3	78.0
77.5°	63.5	62.5	61.6	60.8	60.5	60.1	59.7	59.4
80°	51.2	50.6	50.1	49.6	49.2	48.9	48.5	48.1
82.5°	39.2	38.7	38.1	37.8	37.7	37.6	37.5	37.5
85°	22.5	22.1	21.8	21.5	21.5	21.5	21.5	21.5
87.5°	11.4	11.4	11.4	11.5	11.2	11.2	11.2	10.9
90°	15.4	16.1	16.7	18.0	17.3	18.0	18.6	18.0
92.5°	52.1	41.4	36.5	33.4	32.2	30.3	31.0	29.9
95°	223.0	151.1	118.3	96.0	84.2	78.7	74.3	71.9
97.5°	555.8	445.2	365.3	291.2	245.5	217.6	200.9	195.6
100°	730.2	680.0	607.6	519.6	457.1	411.9	387.7	388.3
102.5°	788.1	786.6	744.3	688.6	639.9	604.1	583.9	569.7
105°	805.2	867.0	878.8	862.8	834.2	810.7	790.9	787.8
107.5°	756.4	856.9	911.2	933.2	933.7	925.8	919.1	913.4
110°	709.8	823.7	901.7	945.2	962.4	967.4	966.1	965.0

TEST NUMBER: P332317-927

CATALOG NUMBER: S123RDIP-S775D805U927-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	663.7	780.1	867.6	923.3	955.1	970.4	975.1	975.3
115°	602.6	710.3	801.5	868.9	915.4	942.6	955.1	958.1
117.5°	558.4	651.4	733.2	801.7	850.1	881.3	899.1	903.4
120°	535.1	618.7	693.1	755.6	804.5	839.2	854.1	857.8
122.5°	516.8	592.5	661.3	719.5	762.9	794.1	810.5	815.2
125°	492.3	559.9	619.3	668.9	708.5	735.8	751.2	755.6
127.5°	471.1	531.2	584.9	630.0	665.3	688.6	702.6	706.5
130°	457.7	513.4	563.6	605.7	638.6	660.8	673.8	678.8
132.5°	445.3	496.6	543.3	583.4	614.3	636.6	648.1	651.6
135°	428.6	472.5	512.8	548.1	578.5	597.1	608.2	612.5
137.5°	413.4	449.4	484.1	514.7	540.2	559.0	568.5	571.3
140°	404.4	436.0	465.7	492.3	515.9	533.2	543.2	542.6
142.5°	396.0	423.1	448.9	472.1	492.1	507.5	516.4	515.8
145°	385.9	406.3	426.1	444.1	459.5	472.5	477.5	478.7
147.5°	377.6	393.8	409.8	422.6	434.3	443.1	447.8	448.3
150°	371.6	385.9	398.9	410.6	419.9	426.7	430.5	430.5
152.5°	366.1	378.4	389.9	399.7	407.0	413.4	415.6	415.6
155°	358.0	367.9	377.2	384.6	390.1	395.1	396.4	397.0
157.5°	349.3	357.6	364.8	370.6	375.4	379.1	380.2	380.0
160°	344.4	351.2	357.4	361.7	366.1	369.7	369.7	369.2
162.5°	338.4	344.2	349.9	353.8	356.6	359.8	359.8	359.3
165°	330.7	334.5	338.8	341.9	344.4	346.8	346.2	346.2
167.5°	324.0	326.9	329.4	331.6	332.7	334.5	333.8	333.8
170°	319.6	321.5	323.9	325.2	325.7	327.0	326.4	326.4
172.5°	315.6	317.0	318.9	319.7	319.8	321.1	320.0	319.5
175°	310.3	310.9	312.1	312.1	312.1	312.8	312.1	311.6
177.5°	307.0	307.4	307.9	307.9	307.4	307.9	307.0	307.0
180°	305.9	305.9	305.9	305.9	305.9	305.9	305.9	305.9

(END OF REPORT)