

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: P331452-935

Luminaire Tested: **S122DIP-S1005D925U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331452-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S1005D925U935-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6586.9 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

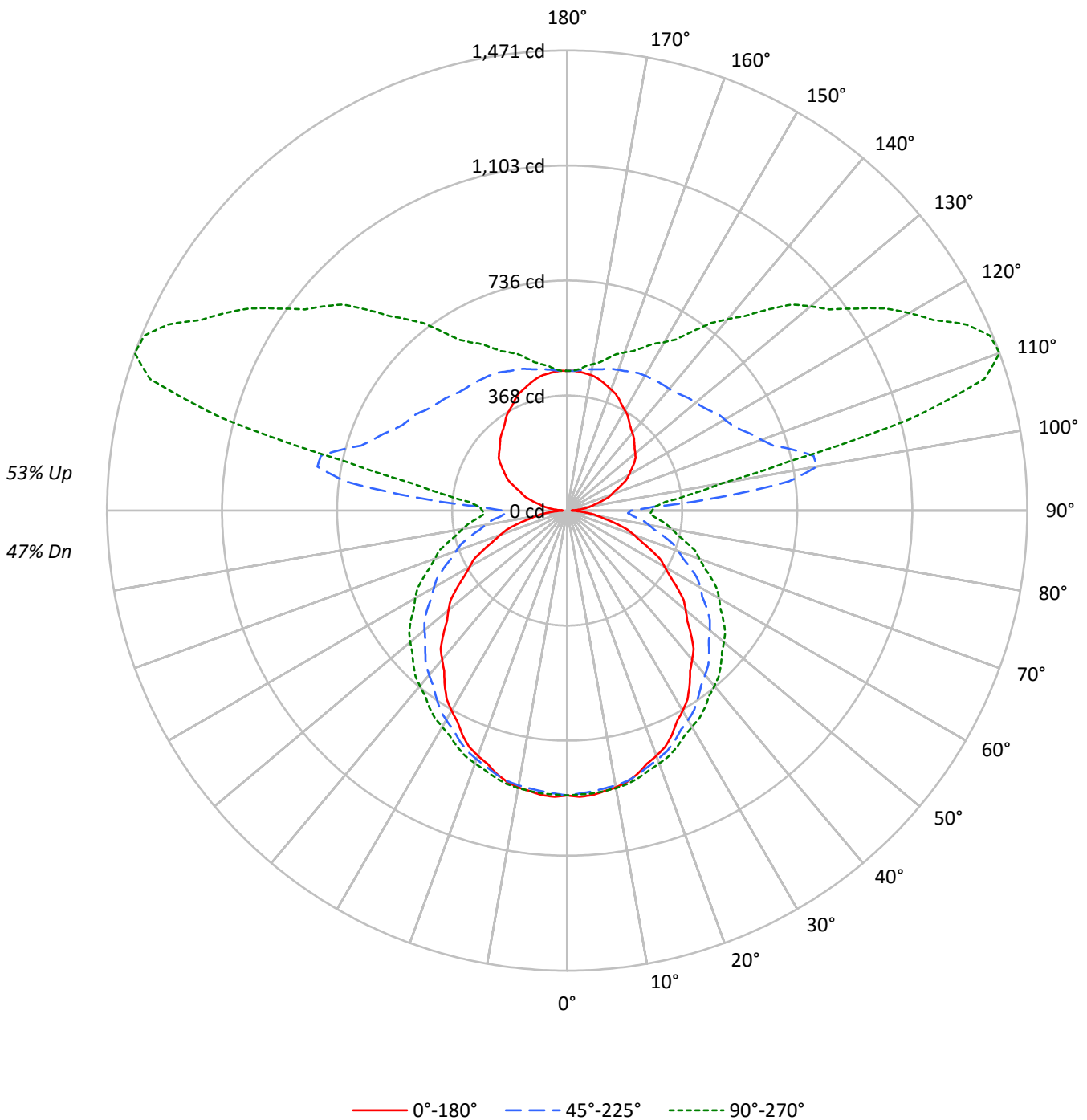
Input Watts (W): 66.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331452-935

CATALOG NUMBER: S122DIP-S1005D925U935-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





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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	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	96	91	86	82	88	83	80	76	69	67	64	57	55	53	45	43	42	37
2	87	78	72	66	79	72	66	61	60	56	52	49	46	43	39	36	34	30
3	79	68	61	54	72	63	56	51	52	47	43	43	39	36	34	31	29	24
4	72	60	52	46	65	55	48	42	46	41	36	38	34	30	30	27	24	21
5	66	53	45	39	60	49	42	36	41	35	31	34	29	26	27	24	21	18
6	60	48	39	33	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	28	23	20	22	19	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	20	17	14	12
9	48	35	28	23	44	33	26	21	28	22	18	23	19	16	19	15	13	11
10	45	32	25	20	41	30	23	19	26	20	16	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14699	14699	14699
5°	14772	14150	14097
10°	14679	13733	13578
15°	14477	13289	13032
20°	14222	12815	12506
25°	13968	12358	12028
30°	13612	11889	11549
35°	13253	11434	11211
40°	12874	11047	10874
45°	12515	10702	10584
50°	12128	10388	10300
55°	11724	10052	10011
60°	11226	9702	9705
65°	10711	9294	9342
70°	10136	8856	8949
75°	9394	8423	8587
80°	8224	7984	8220
85°	7107	7603	7937



TEST NUMBER: P331452-935

CATALOG NUMBER: S122DIP-S1005D925U935-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	1.3
10°-20°	247.4	3.8
20°-30°	374.9	5.7
30°-40°	456.6	6.9
40°-50°	491.2	7.5
50°-60°	477.0	7.2
60°-70°	416.5	6.3
70°-80°	320.7	4.9
80°-90°	219.2	3.3
90°-100°	326.9	5.0
100°-110°	714.6	10.8
110°-120°	715.6	10.9
120°-130°	570.1	8.7
130°-140°	442.5	6.7
140°-150°	324.7	4.9
150°-160°	226.1	3.4
160°-170°	133.1	2.0
170°-180°	43.3	0.7
0°-30°	708.5	10.8
0°-40°	1165.2	17.7
0°-60°	2133.4	32.4
0°-90°	3089.9	46.9
90°-120°	1757.1	26.7
90°-150°	3094.4	47.0
90°-180°	3497.0	53.1
0°-180°	6586.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	913	909	901	909	908	87
15°	871	873	874	885	884	245
25°	792	801	813	828	833	364
35°	682	705	730	758	768	426
45°	560	596	641	681	695	432
55°	429	478	545	591	610	383
65°	293	358	435	488	507	291
75°	162	237	321	375	394	172
85°	48	129	214	267	288	51
90°	14	102	203	253	271	10
95°	41	147	489	327	316	40
105°	111	205	750	1296	1143	119
115°	190	256	612	1217	1408	188
125°	260	310	557	970	1126	232
135°	304	363	521	790	910	235
145°	345	397	504	633	698	217
155°	393	424	489	553	575	181
165°	428	441	468	497	504	121
175°	446	446	450	456	455	42
180°	447	447	447	447	447	



TEST NUMBER: P331452-935

CATALOG NUMBER: S122DIP-S1005D925U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	910.4	910.4	910.4	910.4	910.4	910.4	910.4	910.4	910.4	910.4	910.4
2.5°	915.8	915.1	914.3	913.6	912.9	911.7	910.1	908.4	906.8	905.2	906.4
5°	913.1	912.2	911.4	910.4	909.6	908.3	906.5	904.7	903.0	901.2	903.0
7.5°	904.9	904.3	903.7	903.2	902.6	901.6	900.3	898.9	897.6	896.2	898.3
10°	898.6	898.0	897.4	896.8	896.2	895.5	894.7	893.7	892.9	892.0	894.3
12.5°	888.0	888.1	888.3	888.4	888.5	888.2	887.6	886.9	886.3	885.6	888.0
15°	870.9	871.5	872.0	872.6	873.2	873.5	873.5	873.5	873.5	873.5	876.2
17.5°	848.7	850.0	851.2	852.4	853.6	854.7	855.7	856.6	857.6	858.5	861.3
20°	834.0	835.4	836.9	838.4	839.8	841.1	842.3	843.4	844.6	845.8	849.0
22.5°	818.1	819.8	821.5	823.2	824.9	826.6	828.2	829.8	831.5	833.1	836.4
25°	791.7	793.8	795.8	797.9	800.0	802.3	804.9	807.5	810.2	812.8	816.3
27.5°	760.0	763.4	766.7	770.1	773.4	776.6	779.7	782.8	785.9	789.1	793.5
30°	738.9	742.7	746.6	750.4	754.1	758.0	761.8	765.6	769.4	773.3	777.9
32.5°	715.7	720.0	724.3	728.6	732.8	737.2	741.8	746.2	750.8	755.3	760.7
35°	682.2	687.2	692.2	697.2	702.1	707.4	713.0	718.5	724.1	729.7	736.2
37.5°	645.8	651.5	657.3	663.0	668.7	675.2	682.4	689.7	696.9	704.1	711.3
40°	621.5	627.9	634.4	640.8	647.3	654.4	662.4	670.3	678.2	686.1	693.8
42.5°	598.3	604.7	611.1	617.6	624.1	631.8	640.9	650.1	659.1	668.2	676.5
45°	559.5	567.4	575.3	583.2	591.2	600.2	610.5	620.8	631.0	641.3	650.4
47.5°	521.2	529.9	538.5	547.1	555.7	566.0	578.1	590.0	602.1	614.1	623.6
50°	494.8	503.9	513.0	522.1	531.2	542.3	555.5	568.7	581.9	595.1	605.1
52.5°	469.5	479.1	488.6	498.2	507.7	519.4	533.3	547.3	561.1	575.1	585.2
55°	428.9	439.4	450.0	460.5	471.1	484.0	499.2	514.4	529.7	544.9	555.5
57.5°	388.7	400.6	412.5	424.5	436.4	450.0	465.6	481.1	496.7	512.2	523.6
60°	360.2	372.8	385.5	398.0	410.7	425.3	442.0	458.7	475.4	492.1	503.3
62.5°	334.9	347.9	361.0	374.1	387.2	402.1	418.8	435.5	452.3	469.0	480.8
65°	292.9	307.3	321.7	336.0	350.4	366.3	383.6	400.8	418.1	435.4	447.5
67.5°	254.4	269.4	284.4	299.5	314.4	330.8	348.5	366.3	383.9	401.7	413.8
70°	227.0	242.2	257.4	272.7	287.9	304.6	322.9	341.0	359.2	377.4	389.9
72.5°	201.6	217.3	233.1	248.7	264.5	281.5	300.0	318.4	336.8	355.2	367.6
75°	162.3	178.7	195.1	211.5	228.0	245.6	264.3	283.1	301.9	320.6	333.2
77.5°	124.3	141.5	158.7	175.8	193.0	211.1	230.2	249.3	268.3	287.4	300.0
80°	98.9	116.8	134.7	152.7	170.5	189.0	208.0	227.1	246.2	265.2	277.5
82.5°	77.8	95.5	113.1	130.8	148.4	166.9	186.2	205.5	224.8	244.1	256.4
85°	47.5	65.7	83.9	102.0	120.2	138.7	157.5	176.2	195.0	213.8	226.1
87.5°	26.0	44.0	62.2	80.0	97.8	116.5	136.1	156.1	175.8	194.8	206.6
90°	14.0	33.7	54.1	72.8	91.5	112.0	135.1	159.8	183.7	203.4	214.3
92.5°	22.6	43.1	65.1	84.7	106.4	131.5	168.9	214.3	256.8	276.4	270.5
95°	40.6	57.9	80.2	101.8	129.2	165.6	222.7	315.0	432.3	488.6	457.6
97.5°	58.2	75.1	96.5	120.5	148.5	186.4	253.0	374.0	556.6	715.4	754.5
100°	75.4	88.9	107.5	132.0	160.1	197.8	259.7	381.0	583.0	810.8	945.4
102.5°	90.1	101.9	119.6	143.3	171.1	208.0	266.1	375.2	563.0	806.8	1012.0
105°	111.4	123.4	137.9	159.3	186.7	222.7	278.3	370.0	527.0	750.2	989.0
107.5°	136.0	145.5	158.1	176.8	202.3	237.2	291.0	372.3	504.1	690.6	902.4
110°	151.4	160.7	171.7	188.7	212.7	247.6	299.8	376.1	495.2	660.9	848.2



TEST NUMBER: P331452-935

CATALOG NUMBER: S122DIP-S1005D925U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	166.5	174.9	185.6	201.0	223.3	258.2	308.3	380.4	489.3	638.3	807.8
115°	190.0	197.5	206.0	219.5	239.9	271.3	321.4	387.0	483.6	611.9	756.5
117.5°	213.1	218.7	225.9	237.1	255.7	287.0	333.4	394.7	479.9	593.1	719.8
120°	228.3	232.8	239.2	248.1	266.5	297.0	342.2	400.4	478.2	581.9	699.2
122.5°	242.6	245.9	251.5	260.4	278.1	308.6	351.0	405.0	477.4	572.8	681.0
125°	260.5	263.0	268.2	278.4	295.7	324.4	364.7	412.8	475.4	557.0	653.4
127.5°	275.5	278.7	285.6	296.7	312.9	341.3	378.9	421.2	475.2	544.6	627.8
130°	284.5	287.7	295.9	307.6	324.6	351.5	387.8	426.6	475.7	536.9	611.0
132.5°	292.7	296.5	305.6	318.0	335.5	361.9	395.3	432.0	476.3	529.9	596.2
135°	303.8	307.2	317.5	330.5	350.2	375.7	406.1	439.2	476.5	520.6	575.8
137.5°	315.5	319.5	329.8	343.5	363.0	386.0	414.4	443.8	476.3	512.8	559.3
140°	324.4	327.5	337.6	351.0	369.6	392.1	418.5	445.7	475.5	507.9	549.6
142.5°	333.4	335.8	345.2	358.6	376.5	397.4	422.6	448.7	476.0	505.8	541.7
145°	345.4	348.9	357.5	370.4	387.5	406.5	429.6	453.7	477.8	503.5	532.8
147.5°	359.9	362.5	370.7	382.5	396.8	413.7	435.5	456.7	478.5	500.5	524.8
150°	369.5	372.0	378.9	390.1	403.0	418.4	438.2	458.0	477.8	498.4	519.0
152.5°	379.1	380.3	387.2	397.0	409.2	423.3	441.0	458.7	476.4	495.0	514.2
155°	392.7	393.6	398.7	408.2	417.6	430.5	445.1	459.7	474.3	489.0	505.2
157.5°	404.1	404.9	409.1	417.2	424.8	435.7	448.1	459.7	470.4	482.8	496.9
160°	411.6	412.5	415.9	422.8	429.6	439.1	449.4	459.7	468.3	478.6	490.7
162.5°	419.1	418.6	422.1	427.6	433.8	441.2	450.1	459.0	466.2	475.2	485.2
165°	427.9	427.1	428.8	433.9	438.2	443.4	451.2	457.2	462.3	468.3	476.0
167.5°	435.1	434.1	435.7	438.9	442.0	445.3	451.0	456.0	458.3	462.3	467.1
170°	440.0	438.2	439.1	441.7	443.4	446.0	450.3	454.6	456.3	458.8	462.3
172.5°	442.7	441.7	441.2	443.8	444.8	446.7	449.6	452.5	453.6	454.8	457.5
175°	446.0	445.1	444.3	446.0	446.0	446.9	448.6	450.3	449.4	450.3	451.2
177.5°	447.5	446.2	445.5	446.9	446.9	446.9	447.5	448.9	447.5	446.9	447.5
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9



TEST NUMBER: P331452-935

CATALOG NUMBER: S122DIP-S1005D925U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	910.4	910.4	910.4	910.4	910.4	910.4	910.4	910.4
2.5°	907.5	908.7	909.9	910.2	909.7	909.3	908.8	908.4
5°	904.7	906.5	908.3	909.0	908.7	908.4	908.1	907.8
7.5°	900.4	902.6	904.7	905.6	905.3	905.0	904.7	904.4
10°	896.6	899.1	901.4	902.4	902.1	901.8	901.6	901.2
12.5°	890.4	892.7	895.0	896.0	895.8	895.4	895.2	894.9
15°	878.8	881.4	884.1	885.3	884.9	884.7	884.3	884.1
17.5°	864.0	866.8	869.5	870.9	870.9	870.9	870.9	870.9
20°	852.2	855.5	858.7	860.3	860.3	860.3	860.3	860.3
22.5°	839.6	842.8	846.0	847.9	848.3	848.9	849.3	849.8
25°	819.8	823.4	826.9	829.1	830.0	830.9	831.7	832.6
27.5°	798.0	802.5	806.9	809.4	810.1	810.7	811.4	812.0
30°	782.6	787.3	792.0	794.8	795.7	796.5	797.5	798.3
32.5°	766.1	771.5	776.9	780.3	782.0	783.5	785.1	786.7
35°	742.6	749.1	755.5	759.7	761.8	763.9	765.9	767.9
37.5°	718.4	725.6	732.7	737.4	739.5	741.8	743.9	746.1
40°	701.4	709.0	716.6	721.8	724.4	727.0	729.7	732.4
42.5°	684.8	693.2	701.5	707.0	709.6	712.3	714.9	717.6
45°	659.4	668.6	677.6	683.6	686.6	689.5	692.4	695.3
47.5°	633.1	642.6	652.1	658.5	661.7	665.0	668.1	671.4
50°	615.0	625.0	635.0	641.6	644.8	648.0	651.3	654.4
52.5°	595.5	605.6	615.9	622.7	626.1	629.6	633.1	636.5
55°	566.1	576.6	587.2	594.3	598.1	602.0	605.8	609.6
57.5°	535.0	546.4	557.8	565.3	569.2	573.1	577.0	580.8
60°	514.4	525.6	536.7	544.4	548.5	552.6	556.7	560.8
62.5°	492.7	504.5	516.3	524.2	528.1	531.9	535.8	539.7
65°	459.5	471.5	483.5	491.5	495.2	499.0	502.9	506.7
67.5°	425.9	438.1	450.2	458.3	462.3	466.2	470.3	474.2
70°	402.6	415.2	427.8	435.8	439.4	442.9	446.4	450.0
72.5°	380.0	392.4	404.7	413.0	417.2	421.5	425.7	429.9
75°	345.9	358.4	371.1	379.3	383.1	386.9	390.7	394.5
77.5°	312.5	325.0	337.6	345.9	350.0	354.1	358.3	362.3
80°	289.8	302.2	314.5	322.7	326.8	330.9	335.0	339.1
82.5°	268.7	281.0	293.3	301.4	305.3	309.2	313.1	316.9
85°	238.4	250.7	263.0	271.2	275.3	279.5	283.5	287.7
87.5°	218.3	230.0	242.3	250.4	254.1	257.9	261.6	265.4
90°	225.2	235.1	248.6	257.1	260.6	264.1	267.6	271.1
92.5°	262.6	263.5	267.7	269.9	272.7	273.5	277.7	279.8
95°	399.2	357.9	332.9	321.4	313.7	310.4	311.3	315.6
97.5°	687.5	602.8	520.6	465.7	428.2	410.4	401.4	397.6
100°	938.2	842.5	735.6	638.7	570.6	536.8	515.1	502.9
102.5°	1100.1	1086.7	1011.2	907.9	833.7	773.9	746.0	728.2
105°	1178.0	1285.4	1306.8	1285.2	1235.2	1185.2	1151.4	1142.6
107.5°	1101.8	1257.9	1357.1	1405.2	1415.1	1415.5	1411.4	1398.5
110°	1038.9	1202.0	1321.4	1398.2	1438.4	1457.9	1468.9	1471.2



TEST NUMBER: P331452-935

CATALOG NUMBER: S122DIP-S1005D925U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	980.6	1137.6	1264.6	1351.6	1406.2	1436.8	1454.6	1462.5
115°	907.1	1048.2	1169.6	1264.1	1328.4	1371.1	1396.6	1407.6
117.5°	848.9	973.8	1084.6	1173.4	1238.6	1283.4	1309.9	1319.4
120°	818.3	933.1	1032.3	1116.3	1179.7	1223.2	1251.4	1263.3
122.5°	792.9	898.5	992.7	1068.8	1125.5	1167.9	1192.9	1202.8
125°	755.0	851.4	935.0	1004.7	1057.1	1092.4	1116.6	1126.1
127.5°	717.6	804.9	883.6	948.0	994.0	1027.2	1048.3	1056.4
130°	693.6	774.6	849.5	910.9	955.3	986.9	1006.4	1015.6
132.5°	670.3	745.5	814.7	872.5	916.3	947.9	966.0	974.6
135°	637.8	700.7	763.5	815.9	855.2	885.9	903.7	909.5
137.5°	610.2	663.1	713.5	759.1	794.8	821.2	836.7	843.9
140°	592.9	638.9	683.0	724.1	753.4	777.5	792.1	799.0
142.5°	579.3	618.1	655.9	690.2	717.8	739.6	752.7	755.2
145°	561.2	591.3	619.7	646.3	668.3	684.4	694.5	698.5
147.5°	547.7	570.2	591.2	609.9	627.7	640.1	646.6	648.8
150°	539.7	558.5	576.6	592.0	604.9	615.3	620.4	621.3
152.5°	532.1	549.6	564.9	578.3	588.4	597.4	601.2	601.3
155°	521.6	535.4	548.2	557.7	567.1	573.2	576.6	574.9
157.5°	509.4	520.9	531.8	539.2	545.8	550.8	552.3	552.3
160°	501.8	511.3	520.7	526.8	532.8	537.1	538.0	538.0
162.5°	494.3	502.3	510.4	515.1	521.1	524.0	524.9	524.2
165°	482.9	489.0	495.0	498.4	501.8	505.2	505.2	504.4
167.5°	472.1	476.7	480.9	484.0	485.5	487.4	487.2	486.2
170°	466.6	469.2	472.6	474.3	475.2	477.8	476.9	475.2
172.5°	460.4	462.3	465.0	466.1	466.9	468.1	467.3	466.2
175°	453.7	454.6	455.5	456.3	456.3	457.2	456.3	454.6
177.5°	448.9	448.9	449.6	449.6	449.6	449.6	448.9	447.5
180°	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9

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