

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: P332032-930

Luminaire Tested: **S123DIP-S1000D1025U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332032-930
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: S123DIP-S1000D1025U930-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1025 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6450.9 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

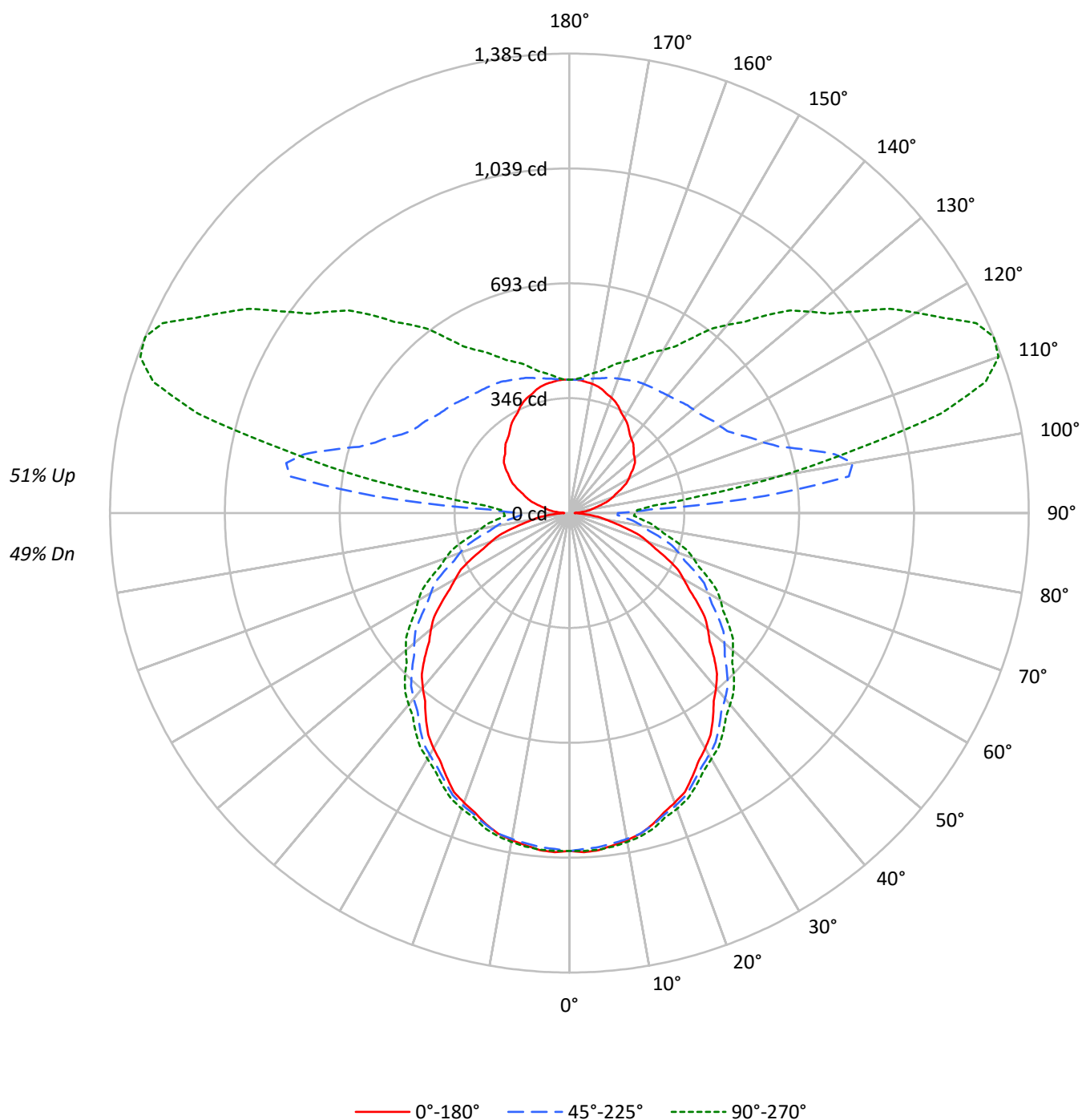
Input Watts (W): 60.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55			49
1	96	92	87	84	89	84	81	77	71	68	66	58	56	55	47	46	44			39
2	87	79	73	67	80	73	68	63	61	57	54	51	48	45	41	38	37			32
3	79	70	62	56	73	64	57	52	54	49	45	44	41	37	36	33	31			26
4	73	61	53	47	66	57	49	44	48	42	38	39	35	32	32	29	26			22
5	66	54	46	40	61	50	43	37	43	37	32	35	31	27	28	25	23			19
6	61	49	40	34	56	45	38	32	38	32	28	32	27	24	26	22	20			17
7	57	44	36	30	52	41	33	28	35	29	25	29	24	21	23	20	17			15
8	52	40	32	26	48	37	30	25	31	26	22	26	22	19	22	18	16			13
9	49	36	29	24	45	34	27	22	29	23	19	24	20	17	20	17	14			12
10	46	33	26	21	42	31	24	20	27	21	17	22	18	15	18	15	13			11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10964	10964	10964
5°	10999	10689	10694
10°	10900	10443	10390
15°	10759	10162	10058
20°	10559	9844	9692
25°	10311	9476	9308
30°	10057	9145	8918
35°	9773	8796	8606
40°	9500	8479	8272
45°	9199	8172	8007
50°	8904	7871	7713
55°	8574	7562	7449
60°	8255	7248	7178
65°	7926	6915	6856
70°	7430	6538	6527
75°	6807	6107	6190
80°	6087	5683	5807
85°	5426	5394	5585

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.5
10°-20°	275.3	4.3
20°-30°	411.7	6.4
30°-40°	491.7	7.6
40°-50°	514.4	8.0
50°-60°	482.8	7.5
60°-70°	403.2	6.3
70°-80°	288.5	4.5
80°-90°	175.1	2.7
90°-100°	331.7	5.1
100°-110°	712.8	11.1
110°-120°	676.2	10.5
120°-130°	527.4	8.2
130°-140°	405.5	6.3
140°-150°	295.4	4.6
150°-160°	203.9	3.2
160°-170°	119.8	1.9
170°-180°	39.0	0.6
0°-30°	783.6	12.1
0°-40°	1275.2	19.8
0°-60°	2272.4	35.2
0°-90°	3139.2	48.7
90°-120°	1720.7	26.7
90°-150°	2949.0	45.7
90°-180°	3312.0	51.3
0°-180°	6450.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1020	1017	1011	1019	1019	97
15°	971	974	973	984	983	273
25°	877	887	891	905	906	404
35°	755	772	787	803	808	472
45°	617	644	671	692	701	476
55°	470	507	547	576	586	421
65°	325	369	417	449	462	321
75°	176	229	284	319	334	188
85°	54	110	169	205	218	57
90°	16	79	146	184	198	12
95°	40	146	592	284	250	39
105°	103	176	738	1257	1159	109
115°	172	228	559	1182	1353	171
125°	235	279	503	904	1059	209
135°	274	326	474	730	844	212
145°	311	355	455	580	642	195
155°	352	380	440	500	522	162
165°	385	396	422	447	455	108
175°	401	402	404	410	409	38
180°	402	402	402	402	402	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1023.1	1022.5	1021.9	1021.3	1020.8	1019.6	1018.1	1016.5	1014.9	1013.3	1014.9
5°	1019.8	1019.3	1018.8	1018.3	1017.8	1016.8	1015.4	1013.8	1012.4	1010.9	1012.8
7.5°	1009.7	1009.9	1010.0	1010.1	1010.2	1009.5	1008.1	1006.7	1005.2	1003.8	1006.2
10°	1000.9	1001.4	1001.9	1002.4	1002.9	1002.5	1001.3	1000.0	998.8	997.6	1000.0
12.5°	990.3	990.9	991.6	992.3	993.0	993.0	992.1	991.2	990.4	989.6	991.9
15°	970.9	971.7	972.4	973.1	973.9	974.1	973.9	973.6	973.4	973.1	975.7
17.5°	946.6	948.0	949.5	951.0	952.4	953.2	953.1	952.9	952.8	952.8	955.0
20°	928.8	930.3	931.7	933.2	934.7	935.7	936.2	936.7	937.2	937.7	939.9
22.5°	910.1	911.6	913.1	914.6	916.1	917.1	917.9	918.5	919.2	919.9	922.7
25°	876.6	879.1	881.6	884.0	886.5	888.1	888.8	889.6	890.3	891.0	894.2
27.5°	842.9	845.7	848.5	851.3	854.1	856.3	857.9	859.5	861.0	862.7	865.4
30°	818.9	822.1	825.3	828.5	831.8	834.3	836.3	838.3	840.2	842.2	845.2
32.5°	792.3	795.9	799.5	803.1	806.7	809.8	812.4	814.9	817.5	820.0	823.2
35°	754.6	758.5	762.5	766.4	770.4	773.9	777.1	780.3	783.5	786.8	790.4
37.5°	714.6	719.1	723.5	727.9	732.4	736.5	740.5	744.4	748.4	752.4	756.5
40°	687.9	692.4	696.8	701.3	705.7	710.5	715.3	720.3	725.2	730.2	734.3
42.5°	658.7	664.1	669.5	675.0	680.4	685.7	690.8	695.9	701.1	706.2	710.8
45°	616.9	622.9	628.8	634.7	640.7	646.7	652.8	659.0	665.2	671.3	676.0
47.5°	573.2	579.9	586.7	593.4	600.1	607.0	614.0	621.1	628.1	635.2	640.4
50°	544.9	551.7	558.6	565.6	572.4	579.8	587.3	595.0	602.7	610.3	616.0
52.5°	514.6	522.0	529.3	536.5	543.9	551.7	560.2	568.6	577.0	585.5	591.3
55°	470.5	478.7	486.7	494.9	503.0	511.5	520.4	529.3	538.2	547.1	553.8
57.5°	427.5	435.9	444.4	452.9	461.4	470.5	480.2	489.9	499.6	509.3	516.0
60°	397.3	406.1	415.0	423.9	432.8	442.2	452.3	462.5	472.6	482.7	489.6
62.5°	368.8	377.9	387.0	396.1	405.1	415.1	425.7	436.4	447.1	457.9	464.7
65°	325.1	334.8	344.4	354.0	363.6	373.8	384.7	395.5	406.3	417.3	424.6
67.5°	280.7	291.0	301.2	311.4	321.6	332.2	343.2	354.3	365.3	376.4	384.5
70°	249.6	260.2	270.8	281.5	292.1	303.3	315.1	327.0	338.8	350.7	358.6
72.5°	221.3	231.9	242.5	253.1	263.7	275.1	287.3	299.5	311.8	324.0	332.1
75°	176.4	188.0	199.6	211.2	222.8	234.7	247.1	259.4	271.7	284.1	292.2
77.5°	137.4	149.0	160.8	172.4	184.1	196.2	208.6	221.0	233.5	245.9	254.5
80°	109.8	122.0	134.0	146.1	158.2	170.6	183.4	196.3	209.1	221.9	230.3
82.5°	85.9	98.2	110.5	122.7	135.0	147.7	160.7	173.7	186.7	199.7	208.1
85°	54.4	66.7	79.0	91.4	103.7	116.4	129.5	142.5	155.6	168.7	177.1
87.5°	29.8	42.5	55.0	67.8	80.4	93.2	106.2	119.3	132.4	145.4	153.7
90°	16.1	29.8	43.5	58.0	71.7	85.7	100.7	115.7	130.7	145.8	153.3
92.5°	23.6	39.4	57.2	74.4	92.1	115.8	149.5	196.9	243.6	243.4	220.9
95°	39.9	51.9	70.5	93.9	124.7	167.3	248.6	381.9	527.5	592.5	508.9
97.5°	58.0	67.6	83.2	104.0	133.5	178.0	255.6	403.8	637.9	849.8	909.4
100°	70.2	78.9	92.5	111.8	139.2	180.6	248.9	380.7	606.0	867.2	1034.7
102.5°	83.0	91.6	103.7	121.6	146.3	184.5	246.7	360.1	561.8	819.5	1035.7
105°	103.3	111.6	122.5	138.1	159.5	193.0	247.5	341.9	506.4	737.5	978.0
107.5°	123.8	131.3	141.0	155.6	175.1	206.1	254.8	334.4	468.6	664.3	883.1
110°	138.5	145.4	153.8	167.3	185.6	215.5	262.0	333.7	452.6	622.8	823.7

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	152.8	158.9	166.6	179.2	196.7	225.4	268.9	335.7	441.2	592.7	770.6
115°	172.4	178.6	186.5	197.5	214.3	242.2	282.0	340.6	432.4	559.3	706.0
117.5°	192.8	198.4	204.3	213.6	230.9	256.3	295.2	347.9	426.6	535.9	663.5
120°	206.3	209.9	215.2	224.6	241.3	266.4	303.8	354.2	425.0	524.3	640.7
122.5°	218.7	221.7	226.4	235.9	251.3	277.1	313.6	360.4	425.5	515.4	621.1
125°	235.3	236.9	241.7	250.7	266.2	291.7	327.3	370.3	426.3	502.6	594.9
127.5°	248.7	250.9	256.7	265.6	282.4	307.3	340.7	378.9	428.7	493.0	571.0
130°	257.2	259.4	266.5	276.1	292.9	317.2	348.9	384.8	430.5	486.7	557.3
132.5°	262.9	265.9	273.9	285.5	302.6	325.8	356.0	390.2	430.9	481.6	544.1
135°	274.0	277.0	285.8	297.7	314.5	337.8	365.7	396.1	431.4	473.9	526.4
137.5°	284.5	287.8	296.4	309.2	326.0	346.9	372.7	400.6	431.1	466.8	510.9
140°	290.8	294.9	303.0	316.1	332.3	353.0	377.4	402.5	431.0	462.6	501.3
142.5°	298.6	301.8	310.5	322.0	338.0	357.1	380.2	404.1	429.9	457.8	492.1
145°	311.2	313.4	320.4	332.4	346.0	364.6	385.7	407.7	430.5	454.9	482.9
147.5°	322.8	324.2	331.4	341.9	355.3	371.3	390.6	410.3	430.5	451.8	474.7
150°	331.3	332.1	338.5	349.1	360.5	375.2	393.9	411.0	430.5	449.2	469.5
152.5°	339.7	339.8	346.3	355.6	365.7	379.8	395.8	412.3	428.5	446.0	464.4
155°	352.4	352.4	357.3	365.4	374.4	385.7	399.6	412.6	426.4	440.3	456.6
157.5°	362.5	363.1	367.0	374.2	381.8	390.6	401.7	413.4	423.7	435.2	447.8
160°	370.3	370.3	373.6	380.0	385.7	393.9	403.7	413.4	422.4	431.3	441.9
162.5°	376.2	376.2	378.8	383.9	389.0	395.8	404.3	412.8	419.8	427.4	436.0
165°	384.9	384.1	385.7	389.8	393.1	398.8	405.3	411.0	415.9	421.6	428.0
167.5°	391.6	390.6	391.4	394.5	396.8	400.4	405.1	409.7	412.0	415.7	420.4
170°	395.5	393.9	394.7	397.1	398.8	400.4	404.5	407.7	409.4	411.8	415.9
172.5°	398.1	397.1	397.3	399.1	400.1	401.0	404.5	407.1	407.4	408.5	411.3
175°	401.2	400.4	399.6	401.2	401.2	402.0	403.7	405.3	404.5	404.5	406.1
177.5°	402.7	402.0	401.4	402.0	402.0	402.0	402.7	404.0	402.7	402.0	402.7
180°	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1016.5	1018.1	1019.6	1020.3	1020.1	1019.9	1019.8	1019.5
5°	1014.8	1016.8	1018.8	1019.6	1019.4	1019.1	1018.9	1018.6
7.5°	1008.7	1011.2	1013.7	1014.7	1014.5	1014.2	1013.8	1013.6
10°	1002.5	1004.9	1007.5	1008.4	1008.0	1007.5	1007.0	1006.5
12.5°	994.1	996.4	998.7	999.6	999.1	998.6	998.1	997.6
15°	978.1	980.6	983.0	984.1	983.9	983.7	983.4	983.2
17.5°	957.2	959.4	961.6	962.5	962.2	961.9	961.6	961.2
20°	942.1	944.3	946.6	947.8	948.0	948.3	948.5	948.8
22.5°	925.5	928.3	931.2	932.5	932.3	932.2	932.1	931.9
25°	897.5	900.7	903.8	905.5	905.5	905.5	905.5	905.5
27.5°	868.1	870.9	873.7	875.1	875.4	875.5	875.8	876.0
30°	848.2	851.1	854.0	855.6	855.6	855.6	855.6	855.6
32.5°	826.4	829.5	832.7	834.5	835.1	835.7	836.3	836.9
35°	794.1	797.9	801.5	803.9	804.9	805.8	806.8	807.8
37.5°	760.8	764.9	769.2	771.6	772.4	773.1	774.0	774.8
40°	738.5	742.7	746.9	749.5	750.5	751.5	752.4	753.4
42.5°	715.3	719.9	724.6	727.5	728.9	730.3	731.6	733.0
45°	680.7	685.4	690.1	693.4	695.4	697.3	699.4	701.3
47.5°	645.7	651.0	656.2	659.7	661.2	662.8	664.2	665.8
50°	621.7	627.3	633.0	636.7	638.5	640.2	641.9	643.6
52.5°	597.2	603.1	608.9	612.9	615.1	617.2	619.3	621.4
55°	560.4	567.0	573.7	578.0	580.0	582.0	583.9	585.9
57.5°	522.8	529.5	536.1	540.7	543.0	545.3	547.6	549.9
60°	496.5	503.4	510.3	515.1	517.9	520.6	523.3	525.9
62.5°	471.7	478.6	485.4	490.2	492.7	495.2	497.7	500.3
65°	432.0	439.4	446.8	451.8	454.2	456.6	459.2	461.6
67.5°	392.6	400.6	408.7	413.8	415.9	418.0	420.0	422.1
70°	366.4	374.3	382.2	387.4	389.9	392.3	394.8	397.3
72.5°	340.2	348.3	356.4	361.7	364.1	366.6	369.1	371.5
75°	300.4	308.5	316.6	322.2	325.1	328.1	331.0	334.0
77.5°	263.1	271.7	280.2	285.7	287.9	290.2	292.4	294.7
80°	238.7	247.1	255.4	260.9	263.3	265.8	268.3	270.8
82.5°	216.5	224.9	233.3	238.7	241.2	243.6	246.1	248.6
85°	185.4	193.8	202.2	207.7	210.1	212.5	215.0	217.5
87.5°	162.2	170.7	179.3	185.1	187.4	190.0	192.6	194.9
90°	162.5	171.7	180.9	187.9	189.6	192.9	196.2	197.8
92.5°	203.2	197.2	199.0	200.1	200.9	200.6	203.7	204.6
95°	418.1	331.3	295.9	271.7	258.6	253.8	250.5	249.7
97.5°	846.9	708.9	611.2	518.9	461.2	427.1	407.6	403.0
100°	1070.3	1011.5	923.5	812.8	733.0	676.0	646.8	650.0
102.5°	1140.8	1145.7	1097.1	1028.5	967.0	922.4	898.4	882.2
105°	1155.0	1243.2	1265.7	1249.0	1213.8	1185.1	1161.3	1159.4
107.5°	1082.5	1221.2	1299.2	1332.5	1335.4	1327.1	1320.5	1315.2
110°	1016.4	1172.6	1281.6	1342.7	1367.5	1376.0	1376.3	1376.6

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CATALOG NUMBER: S123DIP-S1000D1025U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	950.2	1109.4	1230.5	1308.0	1351.8	1374.2	1382.5	1385.0
115°	862.5	1010.0	1135.5	1228.2	1291.2	1329.0	1347.3	1353.3
117.5°	796.5	924.6	1037.9	1131.8	1197.3	1240.3	1265.7	1273.2
120°	761.1	876.6	980.0	1065.8	1131.9	1179.2	1200.4	1207.1
122.5°	732.1	837.1	933.0	1013.0	1071.9	1114.6	1137.8	1145.7
125°	692.8	786.8	870.0	938.6	992.4	1030.0	1052.0	1059.4
127.5°	657.6	741.6	816.9	879.5	927.6	959.9	979.9	986.8
130°	635.2	713.1	783.7	842.1	886.7	917.5	936.1	944.1
132.5°	614.1	686.0	751.8	807.6	849.8	880.8	897.6	903.8
135°	585.4	647.6	704.9	754.2	795.2	820.9	836.7	843.7
137.5°	558.9	610.2	659.7	702.4	737.2	763.1	776.7	781.7
140°	543.2	588.5	631.2	668.7	700.8	724.9	739.2	739.6
142.5°	527.8	566.8	604.0	636.7	664.2	685.7	698.6	699.0
145°	510.9	539.8	567.8	592.9	614.2	632.3	639.8	642.4
147.5°	497.3	519.2	540.8	558.3	574.6	587.1	594.2	595.7
150°	488.3	507.0	524.1	539.8	552.5	562.0	567.4	567.9
152.5°	481.1	497.3	512.4	525.3	535.0	543.4	546.4	546.5
155°	470.3	483.4	495.6	505.4	512.7	519.2	520.8	521.6
157.5°	459.0	469.9	479.3	487.0	493.3	498.2	499.5	499.4
160°	452.5	461.5	469.5	475.2	480.9	485.8	485.8	485.0
162.5°	444.7	452.3	459.8	464.9	468.6	472.8	472.8	472.0
165°	434.6	439.4	445.2	449.2	452.5	455.8	454.9	454.9
167.5°	425.7	429.5	432.8	435.7	437.2	439.4	438.6	438.6
170°	420.0	422.4	425.6	427.2	428.0	429.7	428.8	428.8
172.5°	414.7	416.5	419.1	420.1	420.3	421.9	420.4	419.8
175°	407.7	408.5	410.2	410.2	410.2	411.0	410.2	409.4
177.5°	403.3	404.0	404.6	404.6	404.0	404.6	403.3	403.3
180°	402.0	402.0	402.0	402.0	402.0	402.0	402.0	402.0

(END OF REPORT)