

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: P333195-840

Luminaire Tested: **S125DIP-S610D1035U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333195-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S610D1035U840-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6276.3 lumens  
Efficiency: N/A  
Efficacy: 141.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

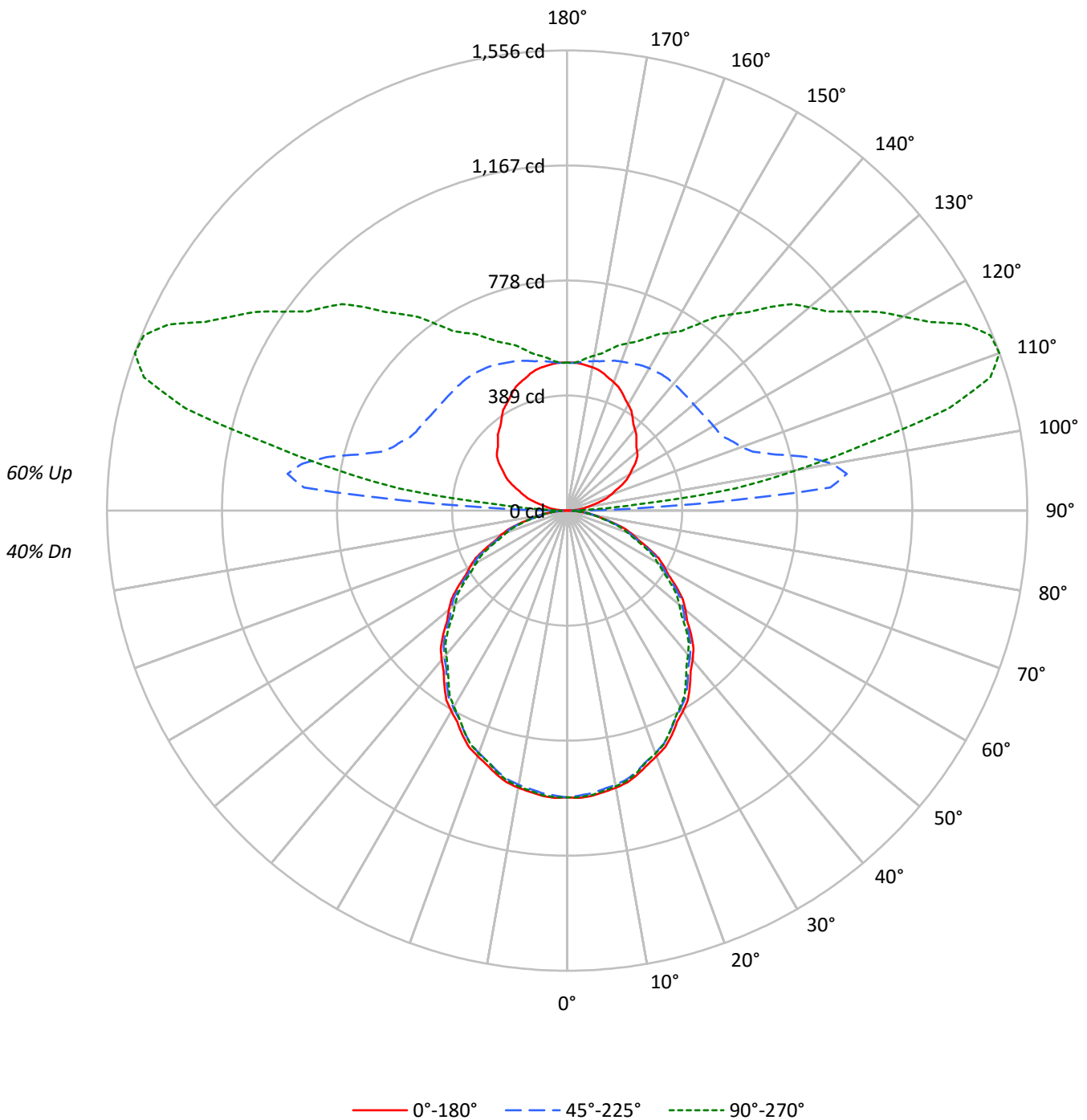
Input Watts (W): 44.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	91	87	84	87	83	80	77	68	66	64	54	53	51	42	41	40	34
2	87	80	74	68	79	73	68	63	60	56	53	48	45	43	37	35	33	28
3	79	70	63	57	72	64	58	53	53	48	44	42	39	36	32	30	28	24
4	72	62	54	48	66	57	50	45	47	42	38	37	34	31	29	26	24	20
5	66	55	47	41	60	50	43	38	42	36	32	34	30	27	26	23	21	18
6	61	49	41	36	55	45	38	33	38	32	28	30	26	23	24	21	19	16
7	57	44	37	31	51	41	34	29	34	29	25	28	24	21	22	19	17	14
8	52	40	33	27	48	37	30	26	31	26	22	25	21	18	20	17	15	12
9	49	37	29	24	44	34	27	23	28	23	20	23	19	16	18	15	13	11
10	45	34	26	22	41	31	25	20	26	21	18	21	18	15	17	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6264	6264	6264
5°	6278	6218	6257
10°	6239	6174	6209
15°	6171	6100	6125
20°	6075	5996	6006
25°	5971	5872	5867
30°	5842	5739	5711
35°	5705	5595	5517
40°	5563	5440	5363
45°	5411	5298	5193
50°	5243	5127	4972
55°	5080	4933	4796
60°	4886	4738	4570
65°	4655	4504	4351
70°	4434	4232	4086
75°	4040	3905	3773
80°	3593	3537	3451
85°	3127	3179	3016



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	1.5
10°-20°	258.3	4.1
20°-30°	381.4	6.1
30°-40°	445.0	7.1
40°-50°	447.0	7.1
50°-60°	392.4	6.3
60°-70°	292.4	4.7
70°-80°	167.2	2.7
80°-90°	51.4	0.8
90°-100°	362.4	5.8
100°-110°	779.1	12.4
110°-120°	731.2	11.7
120°-130°	592.6	9.4
130°-140°	475.6	7.6
140°-150°	358.9	5.7
150°-160°	252.6	4.0
160°-170°	148.9	2.4
170°-180°	48.4	0.8
0°-30°	731.2	11.6
0°-40°	1176.2	18.7
0°-60°	2015.6	32.1
0°-90°	2526.5	40.3
90°-120°	1872.8	29.8
90°-150°	3299.8	52.6
90°-180°	3750.0	59.7
0°-180°	6276.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	968	966	959	966	965	92
15°	923	920	912	916	916	260
25°	838	834	824	825	823	385
35°	724	720	710	706	700	452
45°	592	589	580	571	569	456
55°	451	448	438	431	426	403
65°	305	303	295	288	285	302
75°	162	160	156	154	151	173
85°	42	43	43	42	41	47
90°	1	9	16	21	23	4
95°	33	98	893	405	237	35
105°	114	159	731	1439	1336	120
115°	204	246	587	1265	1488	200
125°	282	331	562	1006	1172	250
135°	331	398	558	843	974	257
145°	385	441	560	698	768	241
155°	440	473	546	618	644	202
165°	480	493	524	556	564	135
175°	499	499	503	509	507	47
180°	500	500	500	500	500	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	972.3	971.9	971.5	971.1	970.7	969.8	968.5	967.0	965.7	964.3	965.7
5°	968.4	968.0	967.7	967.2	966.9	965.9	964.2	962.5	960.8	959.1	960.7
7.5°	959.4	959.1	958.8	958.4	958.1	956.9	955.0	953.2	951.3	949.5	950.9
10°	951.4	951.1	950.8	950.4	950.1	949.0	947.1	945.2	943.3	941.5	942.8
12.5°	941.6	941.0	940.4	939.8	939.2	938.0	936.2	934.5	932.7	931.0	932.1
15°	923.0	922.5	922.0	921.5	921.0	919.8	918.0	916.0	914.1	912.3	913.1
17.5°	901.7	901.0	900.2	899.5	898.7	897.4	895.4	893.4	891.5	889.6	890.6
20°	883.9	883.5	883.2	882.9	882.5	881.3	879.1	876.9	874.6	872.4	873.6
22.5°	866.1	865.5	864.8	864.2	863.6	862.3	860.2	858.2	856.1	853.9	854.7
25°	837.9	837.0	836.2	835.4	834.5	832.9	830.7	828.5	826.3	824.0	824.5
27.5°	804.9	804.4	803.9	803.3	802.8	801.4	799.1	796.9	794.6	792.3	792.3
30°	783.4	782.8	782.3	781.8	781.3	779.8	777.3	774.7	772.1	769.6	769.2
32.5°	760.0	759.3	758.5	757.7	756.9	755.4	753.2	750.8	748.5	746.3	745.7
35°	723.6	722.9	722.2	721.5	720.8	719.3	716.9	714.5	712.2	709.7	708.9
37.5°	685.6	684.8	684.0	683.1	682.3	680.6	678.4	676.2	673.9	671.7	670.4
40°	659.8	659.0	658.1	657.3	656.4	654.8	652.5	650.1	647.6	645.3	643.8
42.5°	632.3	631.6	630.8	630.1	629.3	627.8	625.4	623.1	620.7	618.2	616.9
45°	592.4	591.7	591.0	590.3	589.7	588.2	586.2	584.2	582.1	580.1	578.0
47.5°	549.4	549.4	549.5	549.5	549.5	548.3	545.8	543.4	541.0	538.5	536.4
50°	521.8	521.2	520.7	520.2	519.7	518.5	516.3	514.3	512.3	510.3	508.1
52.5°	493.5	493.1	492.8	492.4	492.0	490.7	488.6	486.4	484.2	482.0	480.1
55°	451.2	450.6	450.1	449.6	449.1	447.7	445.2	442.9	440.5	438.1	436.6
57.5°	406.5	406.3	406.0	405.7	405.5	404.2	402.2	400.2	398.2	396.3	394.3
60°	378.3	377.6	376.9	376.2	375.6	374.3	372.4	370.5	368.6	366.8	365.1
62.5°	348.8	348.3	347.7	347.2	346.6	345.6	344.0	342.3	340.7	339.1	337.3
65°	304.6	304.3	304.0	303.6	303.3	302.2	300.2	298.4	296.5	294.7	293.1
67.5°	261.8	261.1	260.3	259.6	258.9	257.9	256.5	255.1	253.7	252.3	251.0
70°	234.8	234.0	233.1	232.3	231.4	230.1	228.6	227.1	225.6	224.1	223.0
72.5°	205.3	204.7	204.2	203.6	203.0	202.2	201.3	200.3	199.2	198.2	197.1
75°	161.9	161.6	161.2	160.9	160.6	160.0	159.1	158.2	157.3	156.5	156.0
77.5°	121.9	121.7	121.6	121.4	121.3	121.0	120.5	120.1	119.6	119.1	118.8
80°	96.6	96.6	96.6	96.6	96.6	96.5	96.1	95.8	95.5	95.1	94.9
82.5°	74.6	74.3	74.0	73.7	73.5	73.3	73.2	73.2	73.1	73.0	72.7
85°	42.2	42.4	42.5	42.7	42.9	42.9	42.9	42.9	42.9	42.9	42.8
87.5°	16.8	17.0	17.4	17.8	18.2	18.5	18.6	18.9	18.9	19.2	19.4
90°	1.0	2.0	4.0	6.1	8.1	10.1	11.1	13.1	14.1	16.2	17.2
92.5°	12.3	14.9	23.4	35.9	53.2	82.7	137.7	230.0	330.2	325.0	263.1
95°	33.2	34.2	42.3	53.4	75.6	121.0	228.8	450.6	728.9	893.2	874.0
97.5°	55.2	56.5	62.1	73.2	93.1	125.8	197.2	359.7	650.9	953.9	1105.9
100°	70.6	72.6	76.6	87.7	106.8	137.1	195.6	326.6	580.7	910.3	1162.4
102.5°	87.6	88.7	91.9	103.8	121.4	150.8	202.9	313.0	527.5	833.7	1128.5
105°	113.9	113.9	119.0	129.1	145.2	173.4	217.7	307.5	475.8	730.8	1020.3
107.5°	139.8	141.8	146.5	154.8	171.6	197.0	239.9	316.8	454.0	660.1	909.7
110°	158.2	160.3	164.3	173.4	188.5	214.7	256.1	325.6	447.6	627.0	846.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	176.8	178.8	182.1	191.2	206.2	231.7	271.4	336.9	447.6	607.7	800.0
115°	203.7	205.6	208.6	217.7	232.9	258.1	295.4	353.9	450.6	586.7	749.0
117.5°	227.8	230.9	234.1	243.2	260.3	284.7	320.0	373.2	457.3	576.4	718.6
120°	244.0	247.0	251.1	260.1	277.2	302.5	337.7	386.1	463.7	571.6	701.7
122.5°	260.9	263.1	266.3	275.4	294.2	319.4	354.7	400.6	469.4	567.5	687.1
125°	282.3	284.3	289.3	298.4	317.6	343.8	377.1	420.4	478.9	562.5	667.4
127.5°	299.0	302.1	308.5	320.0	340.3	366.6	398.6	438.5	489.6	560.1	649.2
130°	309.5	312.6	320.6	333.7	354.9	381.0	412.3	450.6	496.0	558.5	637.1
132.5°	317.6	321.3	331.0	345.8	367.8	393.9	425.3	461.1	503.2	558.5	627.4
135°	330.6	334.7	346.8	362.9	384.1	411.3	442.5	475.8	513.1	558.5	615.9
137.5°	347.2	350.2	361.5	377.7	398.4	426.5	454.8	486.8	522.2	559.7	605.7
140°	356.9	359.9	372.0	388.1	407.3	434.5	463.7	494.0	526.2	560.5	600.9
142.5°	368.2	370.4	381.6	397.8	416.2	441.7	469.4	498.0	528.7	561.3	596.8
145°	385.1	387.1	397.2	411.3	429.5	452.6	478.9	504.0	531.3	560.5	590.8
147.5°	402.8	404.0	412.7	425.9	441.5	461.9	484.9	507.7	532.3	557.8	584.5
150°	413.3	415.4	422.4	435.6	449.6	466.8	489.0	510.1	532.3	555.4	579.7
152.5°	424.6	425.9	432.1	443.5	456.9	472.4	493.0	511.7	531.5	552.3	574.0
155°	439.5	439.5	445.6	455.7	465.7	479.9	497.0	513.1	529.3	546.4	564.5
157.5°	452.8	452.6	457.5	466.2	475.0	485.7	500.4	514.1	526.6	540.4	555.6
160°	461.7	460.7	464.7	471.8	479.9	489.0	502.0	514.1	524.2	536.3	548.5
162.5°	469.0	468.0	472.0	478.3	484.7	492.2	503.6	513.3	521.8	531.5	542.0
165°	479.9	477.9	480.9	485.9	490.0	496.0	504.0	512.1	518.2	524.2	532.3
167.5°	487.2	486.1	488.0	490.8	493.6	497.4	504.0	509.7	512.5	517.2	522.8
170°	492.0	491.0	492.0	494.0	496.0	499.0	504.0	508.1	510.1	513.1	517.2
172.5°	495.2	493.4	494.4	496.3	497.6	499.0	503.2	506.4	506.9	508.3	511.5
175°	499.0	497.0	498.0	499.0	499.0	499.0	502.0	504.0	503.0	503.0	504.0
177.5°	500.8	499.2	499.2	500.0	499.2	499.2	500.8	501.6	500.0	500.0	500.8
180°	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	967.0	968.5	969.8	970.4	970.3	970.1	970.0	969.9
5°	962.2	963.7	965.2	965.9	965.7	965.6	965.4	965.2
7.5°	952.4	953.9	955.4	956.1	955.9	955.7	955.6	955.4
10°	944.2	945.5	947.0	947.6	947.4	947.2	947.0	946.8
12.5°	933.2	934.3	935.3	935.9	935.8	935.8	935.8	935.7
15°	914.0	914.8	915.7	916.1	916.1	916.1	916.1	916.1
17.5°	891.7	892.7	893.8	893.9	893.0	892.2	891.4	890.5
20°	874.7	876.0	877.2	877.4	876.5	875.7	874.7	873.9
22.5°	855.6	856.4	857.2	857.3	856.7	856.1	855.5	855.0
25°	824.8	825.1	825.5	825.4	824.9	824.4	823.8	823.3
27.5°	792.4	792.5	792.5	792.3	791.8	791.3	790.8	790.3
30°	768.9	768.6	768.2	767.8	767.3	766.8	766.3	765.8
32.5°	745.1	744.4	743.8	743.1	742.1	741.2	740.2	739.3
35°	708.0	707.2	706.3	705.2	703.9	702.5	701.1	699.7
37.5°	669.1	667.9	666.6	665.6	664.8	664.1	663.3	662.5
40°	642.2	640.7	639.1	638.1	637.6	637.1	636.6	636.1
42.5°	615.5	614.1	612.7	611.6	610.8	610.1	609.3	608.4
45°	575.9	573.9	571.9	570.6	570.1	569.6	569.1	568.6
47.5°	534.3	532.2	530.2	528.6	527.4	526.1	524.9	523.7
50°	505.8	503.6	501.4	499.7	498.5	497.3	496.0	494.9
52.5°	478.1	476.2	474.2	472.6	471.3	469.9	468.6	467.3
55°	435.0	433.5	432.0	430.6	429.4	428.2	427.1	425.9
57.5°	392.2	390.3	388.3	387.0	386.4	385.7	385.1	384.5
60°	363.3	361.6	359.9	358.5	357.3	356.1	354.9	353.8
62.5°	335.5	333.7	331.7	330.4	329.5	328.5	327.6	326.7
65°	291.5	290.0	288.5	287.4	286.7	286.0	285.4	284.7
67.5°	249.7	248.4	247.1	246.2	245.8	245.4	245.0	244.6
70°	222.0	221.0	219.9	219.1	218.4	217.7	217.0	216.4
72.5°	195.9	194.8	193.6	192.7	192.0	191.4	190.7	190.0
75°	155.5	155.0	154.5	153.9	153.2	152.5	151.9	151.2
77.5°	118.5	118.2	117.9	117.4	116.9	116.5	116.0	115.5
80°	94.8	94.6	94.4	94.2	93.8	93.5	93.2	92.8
82.5°	72.4	72.1	71.8	71.6	71.6	71.5	71.4	71.4
85°	42.6	42.4	42.3	42.0	41.7	41.3	41.0	40.7
87.5°	19.6	19.8	20.0	20.3	20.0	19.7	19.7	19.4
90°	18.2	19.2	20.2	22.2	22.2	22.2	23.2	23.2
92.5°	178.6	129.7	97.6	82.7	69.8	67.4	65.9	64.3
95°	724.9	571.6	447.6	362.9	291.3	261.2	253.1	236.9
97.5°	1079.5	972.0	851.2	733.5	671.3	614.7	585.5	572.6
100°	1240.0	1190.6	1086.7	981.9	912.3	839.8	802.4	786.4
102.5°	1294.0	1324.4	1274.7	1203.7	1129.3	1077.7	1037.1	1025.0
105°	1262.1	1400.3	1444.6	1433.5	1401.3	1368.1	1347.9	1335.7
107.5°	1148.4	1332.7	1446.6	1499.2	1515.6	1515.4	1508.7	1500.7
110°	1064.6	1256.1	1398.3	1484.0	1529.3	1548.4	1555.5	1555.5





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	998.5	1180.3	1324.0	1425.1	1491.4	1524.3	1541.9	1549.0
115°	915.3	1071.7	1209.7	1319.6	1398.3	1446.6	1474.9	1488.0
117.5°	861.7	996.4	1115.4	1216.2	1294.8	1344.8	1372.8	1380.9
120°	832.7	953.7	1064.6	1153.3	1227.9	1276.3	1303.5	1311.6
122.5°	810.9	923.0	1021.8	1104.9	1171.4	1215.8	1243.0	1250.3
125°	779.3	882.1	969.8	1042.4	1098.8	1140.1	1162.4	1172.5
127.5°	747.0	843.0	924.8	992.8	1044.0	1080.5	1101.5	1105.9
130°	726.9	815.6	894.2	959.8	1010.2	1043.4	1063.6	1069.6
132.5°	706.7	789.7	861.1	924.2	974.6	1007.9	1026.4	1033.3
135°	680.4	750.0	814.6	872.0	916.4	949.7	967.8	973.8
137.5°	658.3	714.6	768.2	817.0	856.7	887.0	903.7	910.3
140°	646.2	693.6	739.9	782.3	819.6	845.9	860.9	866.0
142.5°	635.7	675.8	715.8	752.5	784.2	806.3	820.6	824.9
145°	622.0	653.3	684.5	711.8	735.9	753.1	764.2	768.2
147.5°	609.2	634.5	658.5	679.0	698.2	712.0	718.4	720.2
150°	601.9	624.0	643.2	661.4	676.4	688.5	692.6	693.6
152.5°	593.8	613.5	631.1	645.2	657.9	667.6	671.6	672.6
155°	581.7	597.8	612.0	623.0	633.1	640.2	643.2	644.2
157.5°	569.6	582.9	593.8	602.5	610.4	616.1	618.9	618.7
160°	561.5	571.6	581.7	588.8	595.8	600.9	602.9	601.9
162.5°	552.7	561.9	570.4	576.6	582.1	586.3	586.7	586.5
165°	540.4	547.4	553.5	558.5	562.5	564.5	564.5	564.5
167.5°	528.7	533.3	538.0	541.6	543.6	545.4	544.6	544.4
170°	522.2	525.2	528.3	530.3	532.3	533.3	533.3	532.3
172.5°	514.9	518.0	520.2	521.4	521.8	523.6	522.0	521.0
175°	507.1	507.1	509.1	509.1	509.1	510.1	508.1	507.1
177.5°	501.6	502.4	502.4	502.4	501.6	502.4	500.0	500.0
180°	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0

(END OF REPORT)