

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: P334808

Luminaire Tested: **S124IP-S1035U927-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334808
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124IP-S1035U927-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1035 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

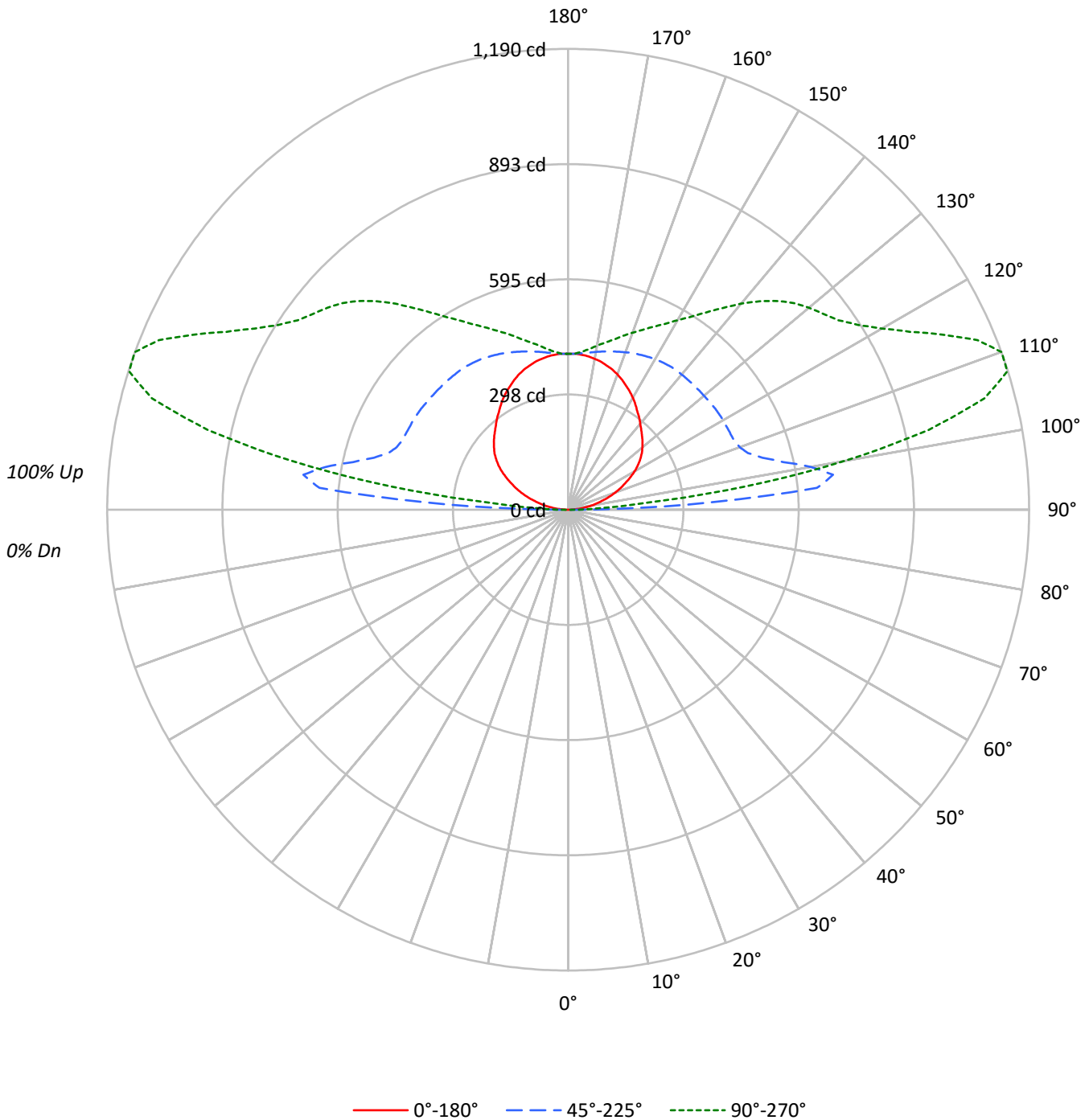
Lumens per Lamp: N/A
Luminaire Lumens: 2933.4 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 35.1
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	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	1.6	0.1
90°-100°	291.7	9.9
100°-110°	609.1	20.8
110°-120°	541.4	18.5
120°-130°	455.8	15.5
130°-140°	380.3	13.0
140°-150°	290.3	9.9
150°-160°	204.1	7.0
160°-170°	120.0	4.1
170°-180°	39.0	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.6	0.1
90°-120°	1442.3	49.2
90°-150°	2568.6	87.6
90°-180°	2932.0	100.0
0°-180°	2933.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	6	14	16	17	2
95°	26	82	644	319	193	29
105°	92	134	519	1117	1113	99
115°	163	204	463	889	1068	162
125°	227	270	460	756	852	202
135°	270	321	456	671	762	208
145°	311	356	454	566	622	195
155°	354	382	441	500	521	163
165°	385	397	423	448	455	109
175°	402	402	406	411	410	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°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.8	2.4	4.7	5.5	6.3	6.3	11.1	11.1	12.7	14.2	13.4
92.5°	11.1	15.8	24.5	36.4	50.6	71.2	120.2	196.9	271.3	310.0	257.8
95°	26.1	28.5	36.4	46.7	65.6	98.9	167.7	297.4	486.4	644.5	662.7
97.5°	43.5	43.5	50.6	60.1	76.7	105.2	159.8	271.3	465.8	689.6	831.2
100°	60.1	60.1	65.6	75.1	90.2	115.5	162.1	251.5	412.8	635.8	838.3
102.5°	75.9	77.5	82.2	90.9	105.2	128.9	170.0	246.0	377.2	568.6	779.0
105°	92.5	94.9	98.9	108.3	122.6	145.5	183.5	249.1	359.8	518.8	704.6
107.5°	110.7	112.3	116.3	126.5	140.0	162.9	197.7	258.6	355.1	486.4	643.7
110°	128.9	130.5	134.4	143.9	158.2	179.5	214.3	269.7	356.7	471.3	600.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	146.3	147.9	152.6	161.3	175.6	196.9	230.1	281.5	361.4	464.2	575.7
115°	162.9	165.3	170.8	178.7	193.8	215.1	246.7	294.2	367.7	462.6	562.3
117.5°	180.3	182.7	187.4	196.1	210.4	232.5	262.6	306.8	374.1	461.9	555.2
120°	197.7	199.3	204.8	213.5	227.0	249.1	279.2	320.3	381.2	461.9	549.6
122.5°	213.5	215.1	220.6	228.6	243.6	264.9	295.0	332.9	388.3	461.1	543.3
125°	227.0	230.1	234.9	243.6	258.6	280.7	309.2	345.6	395.4	460.3	536.2
127.5°	239.6	242.0	247.5	257.0	272.8	295.0	322.7	356.7	401.0	458.7	526.7
130°	249.9	253.1	259.4	271.3	286.3	309.2	336.1	367.0	407.3	457.9	518.0
132.5°	260.2	262.6	271.3	282.3	298.9	320.3	347.2	377.2	412.8	457.1	510.1
135°	269.7	272.8	280.7	294.2	310.8	331.4	357.5	385.9	418.4	456.3	502.2
137.5°	279.2	282.3	291.0	303.7	321.1	340.9	365.4	392.3	421.5	456.3	495.1
140°	289.4	291.8	300.5	314.0	330.6	349.6	373.3	398.6	425.5	455.5	489.5
142.5°	300.5	302.9	310.8	323.5	339.3	357.5	380.4	403.3	428.6	455.5	484.8
145°	310.8	313.2	321.1	332.2	347.2	364.6	385.1	406.5	429.4	453.9	479.3
147.5°	322.7	323.5	330.6	342.4	355.1	370.9	390.7	409.7	430.2	451.6	474.5
150°	333.7	334.5	340.9	350.3	362.2	377.2	394.6	412.0	430.2	449.2	469.0
152.5°	344.0	344.0	350.3	359.0	369.3	382.8	397.8	413.6	428.6	445.2	462.6
155°	353.5	354.3	359.0	367.0	375.7	387.5	401.0	414.4	427.1	441.3	456.3
157.5°	363.0	363.0	367.7	374.1	382.0	391.5	403.3	414.4	425.5	437.3	450.0
160°	371.7	371.7	374.9	380.4	386.7	395.4	404.9	414.4	423.1	432.6	442.9
162.5°	379.6	378.8	381.2	385.9	391.5	397.8	406.5	414.4	420.7	427.8	436.5
165°	385.1	385.1	386.7	390.7	394.6	399.4	406.5	412.8	417.6	423.1	429.4
167.5°	391.5	390.7	391.5	394.6	397.0	401.0	406.5	411.2	414.4	418.4	423.1
170°	395.4	394.6	395.4	397.8	399.4	401.7	405.7	409.7	411.2	413.6	416.8
172.5°	399.4	398.6	398.6	400.2	401.0	402.5	404.9	408.1	408.1	408.9	411.2
175°	401.7	401.0	401.0	401.7	402.5	402.5	404.1	406.5	405.7	405.7	407.3
177.5°	403.3	402.5	401.7	402.5	402.5	402.5	403.3	404.9	403.3	403.3	404.1
180°	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	14.2	15.0	15.8	15.8	16.6	17.4	16.6	16.6
92.5°	190.6	142.4	112.3	92.5	80.7	75.1	72.0	72.0
95°	586.0	463.4	357.5	280.7	242.0	217.5	203.2	193.0
97.5°	843.8	782.9	695.9	607.4	553.6	506.1	482.4	463.4
100°	953.8	969.6	930.8	872.3	803.5	755.3	731.5	725.2
102.5°	948.2	1042.3	1066.1	1050.2	1014.7	983.0	957.7	953.0
105°	885.7	1022.6	1100.9	1133.3	1134.9	1128.5	1117.5	1112.7
107.5°	809.0	956.9	1066.1	1132.5	1167.3	1181.5	1187.8	1188.6
110°	741.0	877.8	992.5	1079.5	1135.7	1168.9	1183.1	1190.2



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CATALOG NUMBER: S124IP-S1035U927-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	691.2	808.2	915.0	1002.0	1067.6	1109.6	1130.9	1143.6
115°	661.1	758.4	850.9	926.9	989.3	1036.8	1062.1	1068.4
117.5°	643.7	726.0	801.1	867.6	922.9	964.0	990.9	994.9
120°	632.7	706.2	769.5	825.6	870.7	905.5	926.1	934.8
122.5°	623.2	693.6	749.7	797.2	833.5	862.0	878.6	887.3
125°	612.1	680.1	734.7	778.2	809.8	832.8	847.8	852.5
127.5°	599.5	665.1	719.7	760.8	792.4	813.0	825.6	830.4
130°	583.6	646.1	699.9	741.8	774.2	794.0	806.7	811.4
132.5°	567.0	624.8	677.0	718.9	750.5	773.4	785.3	790.1
135°	552.0	603.4	651.7	691.2	722.8	745.0	757.6	762.4
137.5°	537.8	582.9	624.8	661.1	691.2	714.1	724.4	729.9
140°	525.9	563.1	598.7	631.9	659.6	677.0	688.0	694.4
142.5°	514.8	546.5	575.7	603.4	627.1	643.0	652.4	656.4
145°	504.6	531.4	555.2	577.3	597.1	610.5	618.4	622.4
147.5°	495.9	518.0	537.8	556.0	571.0	582.9	589.2	590.8
150°	488.0	506.1	522.0	536.2	548.8	559.1	563.9	564.7
152.5°	479.3	494.3	508.5	519.6	529.9	537.8	540.1	540.9
155°	470.6	483.2	495.1	504.6	512.5	518.8	521.2	521.2
157.5°	461.1	472.1	482.4	490.3	496.6	501.4	503.0	503.0
160°	452.4	461.1	469.8	476.1	480.8	485.6	486.4	486.4
162.5°	443.7	450.8	457.1	462.6	465.8	470.6	471.3	470.6
165°	435.8	440.5	446.0	450.0	453.2	456.3	455.5	454.7
167.5°	427.8	431.8	436.5	438.9	440.5	442.9	442.9	442.1
170°	420.7	423.1	426.3	428.6	430.2	431.0	430.2	430.2
172.5°	414.4	416.0	417.6	419.1	419.9	420.7	419.9	418.4
175°	408.9	409.7	411.2	411.2	411.2	412.8	411.2	409.7
177.5°	404.9	405.7	405.7	406.5	405.7	406.5	404.9	403.3
180°	402.5	402.5	402.5	402.5	402.5	402.5	402.5	402.5

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