

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: P334794

Luminaire Tested: **S124IP-S1205U830-4F0-1E-UDD-4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334794
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-S1205U830-4F0-1E-UDD-4
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC
PENDANT MOUNT, 1205 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4062.4 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

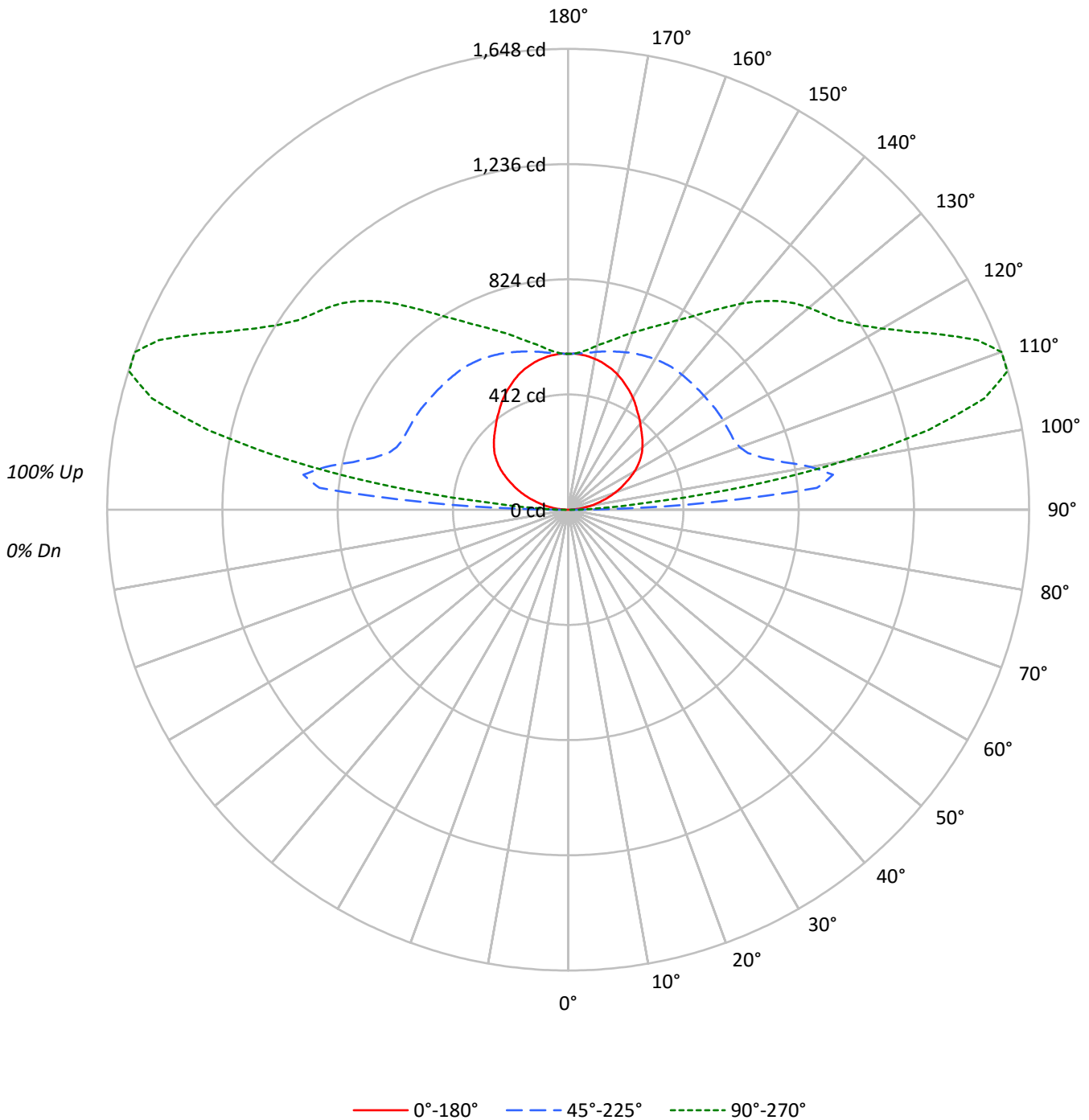
Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2.2	0.1
90°-100°	404.0	9.9
100°-110°	843.5	20.8
110°-120°	749.8	18.5
120°-130°	631.2	15.5
130°-140°	526.6	13.0
140°-150°	402.1	9.9
150°-160°	282.7	7.0
160°-170°	166.3	4.1
170°-180°	54.1	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	2.2	0.1
90°-120°	1997.4	49.2
90°-150°	3557.2	87.6
90°-180°	4060.0	99.9
0°-180°	4062.4	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	9	20	22	23	2
95°	36	114	893	442	267	40
105°	128	186	718	1547	1541	136
115°	226	283	641	1231	1480	224
125°	314	373	637	1048	1181	280
135°	374	445	632	930	1056	289
145°	430	493	629	784	862	270
155°	490	528	611	692	722	226
165°	533	550	586	620	630	151
175°	556	558	562	570	567	53
180°	558	558	558	558	558	



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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°	1.1	3.3	6.6	7.7	8.8	8.8	15.3	15.3	17.5	19.7	18.6
92.5°	15.3	21.9	34.0	50.4	70.1	98.6	166.5	272.7	375.7	429.3	357.0
95°	36.1	39.4	50.4	64.6	90.9	136.9	232.2	411.8	673.6	892.6	917.8
97.5°	60.2	60.2	70.1	83.2	106.2	145.7	221.2	375.7	645.1	955.0	1151.1
100°	83.2	83.2	90.9	104.0	124.9	159.9	224.5	348.3	571.7	880.6	1160.9
102.5°	105.1	107.3	113.9	126.0	145.7	178.5	235.5	340.6	522.4	787.5	1078.8
105°	128.1	131.4	136.9	150.0	169.8	201.5	254.1	345.0	498.3	718.5	975.9
107.5°	153.3	155.5	161.0	175.2	193.9	225.6	273.8	358.1	491.8	673.6	891.5
110°	178.5	180.7	186.2	199.3	219.0	248.6	296.8	373.5	494.0	652.8	831.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	202.6	204.8	211.4	223.4	243.1	272.7	318.7	389.9	500.5	642.9	797.3
115°	225.6	228.9	236.6	247.5	268.3	297.9	341.7	407.4	509.3	640.7	778.7
117.5°	249.7	253.0	259.6	271.6	291.3	322.0	363.6	425.0	518.0	639.6	768.9
120°	273.8	276.0	283.7	295.7	314.3	345.0	386.6	443.6	527.9	639.6	761.2
122.5°	295.7	297.9	305.6	316.5	337.3	366.9	408.5	461.1	537.8	638.5	752.4
125°	314.3	318.7	325.3	337.3	358.1	388.8	428.2	478.6	547.6	637.4	742.6
127.5°	331.9	335.1	342.8	356.0	377.9	408.5	446.9	494.0	555.3	635.2	729.4
130°	346.1	350.5	359.2	375.7	396.5	428.2	465.5	508.2	564.0	634.1	717.4
132.5°	360.3	363.6	375.7	391.0	414.0	443.6	480.8	522.4	571.7	633.0	706.4
135°	373.5	377.9	388.8	407.4	430.4	458.9	495.0	534.5	579.4	632.0	695.5
137.5°	386.6	391.0	403.0	420.6	444.7	472.0	506.0	543.2	583.8	632.0	685.6
140°	400.9	404.1	416.2	434.8	457.8	484.1	517.0	552.0	589.2	630.9	678.0
142.5°	416.2	419.5	430.4	448.0	469.9	495.0	526.8	558.6	593.6	630.9	671.4
145°	430.4	433.7	444.7	460.0	480.8	504.9	533.4	563.0	594.7	628.7	663.7
147.5°	446.9	448.0	457.8	474.2	491.8	513.7	541.0	567.3	595.8	625.4	657.1
150°	462.2	463.3	472.0	485.2	501.6	522.4	546.5	570.6	595.8	622.1	649.5
152.5°	476.4	476.4	485.2	497.2	511.5	530.1	550.9	572.8	593.6	616.6	640.7
155°	489.6	490.7	497.2	508.2	520.2	536.7	555.3	573.9	591.4	611.1	632.0
157.5°	502.7	502.7	509.3	518.0	529.0	542.1	558.6	573.9	589.2	605.7	623.2
160°	514.8	514.8	519.1	526.8	535.6	547.6	560.8	573.9	586.0	599.1	613.3
162.5°	525.7	524.6	527.9	534.5	542.1	550.9	563.0	573.9	582.7	592.5	604.6
165°	533.4	533.4	535.6	541.0	546.5	553.1	563.0	571.7	578.3	586.0	594.7
167.5°	542.1	541.0	542.1	546.5	549.8	555.3	563.0	569.5	573.9	579.4	586.0
170°	547.6	546.5	547.6	550.9	553.1	556.4	561.9	567.3	569.5	572.8	577.2
172.5°	553.1	552.0	552.0	554.2	555.3	557.5	560.8	565.1	565.1	566.2	569.5
175°	556.4	555.3	555.3	556.4	557.5	557.5	559.7	563.0	561.9	561.9	564.0
177.5°	558.6	557.5	556.4	557.5	557.5	557.5	558.6	560.8	558.6	558.6	559.7
180°	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5



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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°	19.7	20.8	21.9	21.9	23.0	24.1	23.0	23.0
92.5°	264.0	197.1	155.5	128.1	111.7	104.0	99.7	99.7
95°	811.6	641.8	495.0	388.8	335.1	301.2	281.5	267.2
97.5°	1168.6	1084.3	963.8	841.1	766.7	701.0	668.1	641.8
100°	1320.9	1342.8	1289.1	1208.0	1112.8	1045.9	1013.1	1004.3
102.5°	1313.2	1443.5	1476.4	1454.5	1405.2	1361.4	1326.3	1319.8
105°	1226.7	1416.1	1524.6	1569.5	1571.7	1562.9	1547.6	1541.0
107.5°	1120.4	1325.2	1476.4	1568.4	1616.6	1636.3	1645.0	1646.1
110°	1026.2	1215.7	1374.5	1495.0	1572.8	1618.8	1638.5	1648.3



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CATALOG NUMBER: S124IP-S1205U830-4F0-1E-UDD-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	957.2	1119.3	1267.2	1387.7	1478.6	1536.6	1566.2	1583.7
115°	915.6	1050.3	1178.5	1283.6	1370.1	1435.9	1470.9	1479.7
117.5°	891.5	1005.4	1109.5	1201.5	1278.1	1335.1	1372.3	1377.8
120°	876.2	978.0	1065.7	1143.4	1205.9	1254.0	1282.5	1294.6
122.5°	863.0	960.5	1038.3	1104.0	1154.4	1193.8	1216.8	1228.9
125°	847.7	941.9	1017.5	1077.7	1121.5	1153.3	1174.1	1180.7
127.5°	830.2	921.1	996.7	1053.6	1097.4	1125.9	1143.4	1150.0
130°	808.3	894.8	969.3	1027.3	1072.2	1099.6	1117.1	1123.7
132.5°	785.3	865.2	937.5	995.6	1039.4	1071.1	1087.6	1094.1
135°	764.5	835.7	902.5	957.2	1001.0	1031.7	1049.2	1055.8
137.5°	744.8	807.2	865.2	915.6	957.2	989.0	1003.2	1010.9
140°	728.3	779.8	829.1	875.1	913.4	937.5	952.9	961.6
142.5°	713.0	756.8	797.3	835.7	868.5	890.4	903.6	909.0
145°	698.8	736.0	768.9	799.5	826.9	845.5	856.5	861.9
147.5°	686.7	717.4	744.8	769.9	790.8	807.2	815.9	818.1
150°	675.8	701.0	722.9	742.6	760.1	774.3	780.9	782.0
152.5°	663.7	684.5	704.2	719.6	733.8	744.8	748.0	749.1
155°	651.7	669.2	685.6	698.8	709.7	718.5	721.8	721.8
157.5°	638.5	653.9	668.1	679.0	687.8	694.4	696.6	696.6
160°	626.5	638.5	650.6	659.3	665.9	672.5	673.6	673.6
162.5°	614.4	624.3	633.0	640.7	645.1	651.7	652.8	651.7
165°	603.5	610.0	617.7	623.2	627.6	632.0	630.9	629.8
167.5°	592.5	598.0	604.6	607.9	610.0	613.3	613.3	612.2
170°	582.7	586.0	590.3	593.6	595.8	596.9	595.8	595.8
172.5°	573.9	576.1	578.3	580.5	581.6	582.7	581.6	579.4
175°	566.2	567.3	569.5	569.5	569.5	571.7	569.5	567.3
177.5°	560.8	561.9	561.9	563.0	561.9	563.0	560.8	558.6
180°	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5

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