

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1007767

Luminaire Tested: S124IP-B810UB50-4F0-XX-W2A-4

Issue Date: 5/5/2025

Test Information

Test Method: LM-79-2019
Report Number: P1007767
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18)
Test Lab: INNOVATION CENTER
Issue Date: 5/5/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124IP-B810UB50-4F0-XX-W2A-4
Description: Define 4 Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

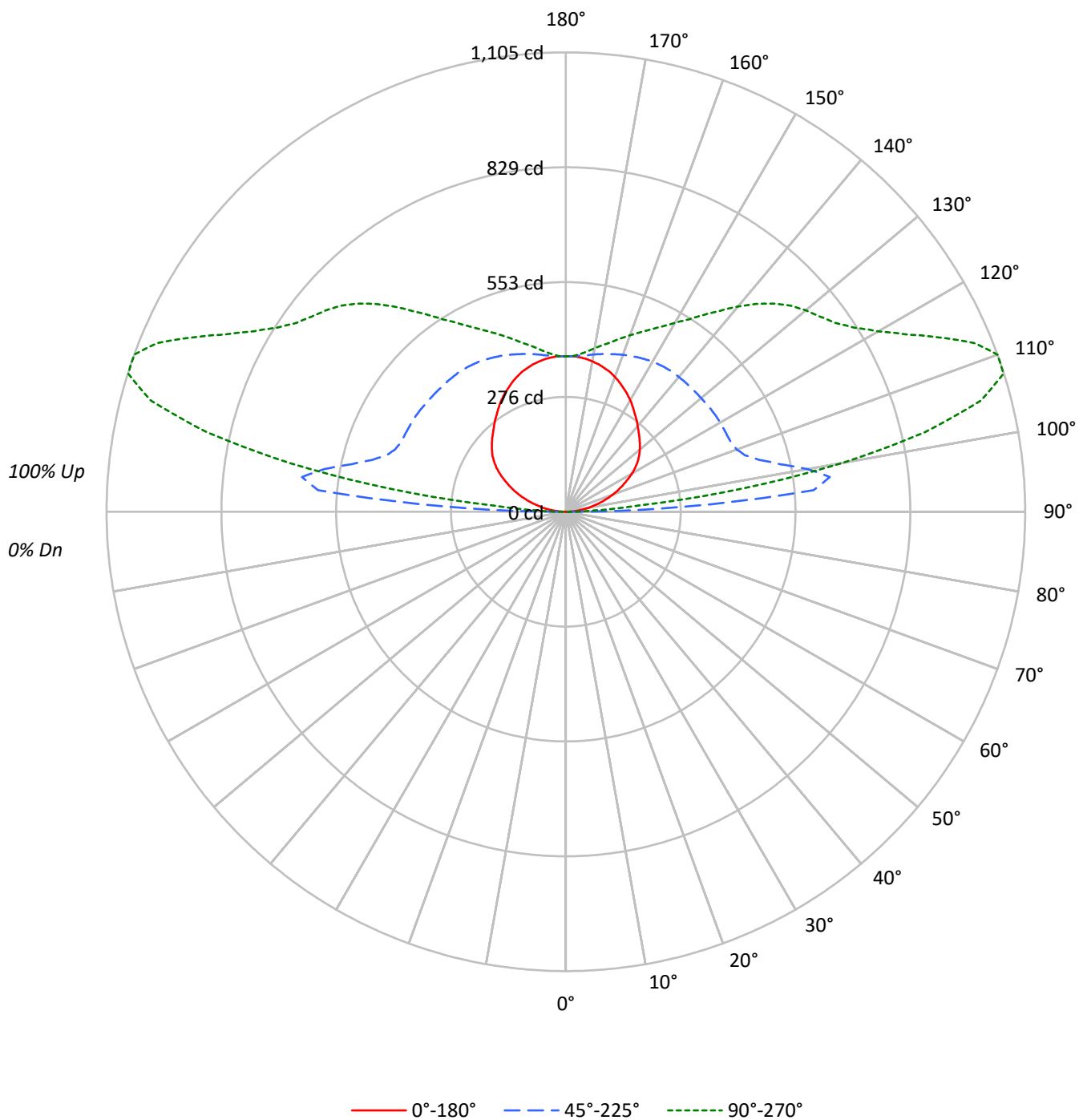
Lumens per Lamp: N/A
Luminaire Lumens: 2724.0 lumens
Efficiency: N/A
Efficacy: 129.1 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Indirect

Input Watts (W): 21.1
Input Voltage (V):
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: 24 FT

TEST NUMBER: P1007767

CATALOG NUMBER: S124IP-B810UB50-4F0-XX-W2A-4

Luminous Intensity Polar Plot



TEST NUMBER: P1007767

CATALOG NUMBER: S124IP-B810UB50-4F0-XX-W2A-4

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

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

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 0°
Luminance: 0 cd/sqm

TEST NUMBER: P1007767

CATALOG NUMBER: S124IP-B810UB50-4F0-XX-W2A-4

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°	1.5	0.1
90°-100°	270.9	9.9
100°-110°	565.6	20.8
110°-120°	502.8	18.5
120°-130°	423.2	15.5
130°-140°	353.1	13.0
140°-150°	269.6	9.9
150°-160°	189.5	7.0
160°-170°	111.5	4.1
170°-180°	36.3	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	1.5	0.1
90°-120°	1339.3	49.2
90°-150°	2385.3	87.6
90°-180°	2723.0	100.0
0°-180°	2724.0	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	13	15	15	2
95°	24	76	598	296	179	27
105°	86	124	482	1037	1033	92
115°	151	190	430	825	992	150
125°	211	250	427	702	792	188
135°	250	298	424	624	708	194
145°	289	330	422	526	578	181
155°	328	354	410	464	484	151
165°	358	369	393	416	422	101
175°	373	374	377	382	380	35
180°	374	374	374	374	374	

TEST NUMBER: P1007767

CATALOG NUMBER: S124IP-B810UB50-4F0-XX-W2A-4

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°	0.7	2.2	4.4	5.1	5.9	5.9	10.3	10.3	11.8	13.2	12.5
92.5°	10.3	14.7	22.8	33.8	47.0	66.1	111.6	182.9	251.9	287.9	239.4
95°	24.2	26.4	33.8	43.3	61.0	91.8	155.7	276.1	451.7	598.5	615.4
97.5°	40.4	40.4	47.0	55.8	71.2	97.7	148.3	251.9	432.6	640.4	771.8
100°	55.8	55.8	61.0	69.8	83.7	107.2	150.6	233.5	383.4	590.5	778.5
102.5°	70.5	72.0	76.4	84.5	97.7	119.7	157.9	228.4	350.3	528.0	723.4
105°	85.9	88.1	91.8	100.6	113.8	135.1	170.4	231.3	334.1	481.8	654.3
107.5°	102.8	104.3	108.0	117.5	130.0	151.3	183.6	240.1	329.7	451.7	597.8
110°	119.7	121.2	124.8	133.7	146.9	166.7	199.0	250.4	331.2	437.7	557.4

TEST NUMBER: P1007767

CATALOG NUMBER: S124IP-B810UB50-4F0-XX-W2A-4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	135.9	137.3	141.7	149.8	163.0	182.9	213.7	261.4	335.6	431.1	534.6
115°	151.3	153.5	158.6	166.0	179.9	199.8	229.1	273.2	341.5	429.6	522.2
117.5°	167.4	169.6	174.1	182.1	195.3	215.9	243.8	284.9	347.4	428.9	515.5
120°	183.6	185.1	190.2	198.3	210.8	231.3	259.2	297.4	354.0	428.9	510.4
122.5°	198.3	199.8	204.9	212.2	226.2	246.0	273.9	309.2	360.6	428.2	504.5
125°	210.8	213.7	218.1	226.2	240.1	260.7	287.1	320.9	367.2	427.4	497.9
127.5°	222.5	224.7	229.9	238.7	253.4	273.9	299.6	331.2	372.3	425.9	489.1
130°	232.1	235.0	240.9	251.9	265.9	287.1	312.1	340.8	378.2	425.2	481.0
132.5°	241.6	243.8	251.9	262.2	277.6	297.4	322.4	350.3	383.4	424.5	473.7
135°	250.4	253.4	260.7	273.2	288.6	307.7	331.9	358.4	388.5	423.7	466.3
137.5°	259.2	262.2	270.3	282.0	298.2	316.5	339.3	364.3	391.4	423.7	459.7
140°	268.8	271.0	279.1	291.6	307.0	324.6	346.6	370.1	395.1	423.0	454.6
142.5°	279.1	281.3	288.6	300.4	315.1	331.9	353.2	374.5	398.0	423.0	450.2
145°	288.6	290.8	298.2	308.4	322.4	338.6	357.7	377.5	398.8	421.5	445.0
147.5°	299.6	300.4	307.0	318.0	329.7	344.4	362.8	380.4	399.5	419.3	440.6
150°	309.9	310.6	316.5	325.3	336.4	350.3	366.5	382.6	399.5	417.1	435.5
152.5°	319.5	319.5	325.3	333.4	343.0	355.4	369.4	384.1	398.0	413.5	429.6
155°	328.3	329.0	333.4	340.8	348.8	359.9	372.3	384.8	396.6	409.8	423.7
157.5°	337.1	337.1	341.5	347.4	354.7	363.5	374.5	384.8	395.1	406.1	417.9
160°	345.2	345.2	348.1	353.2	359.1	367.2	376.0	384.8	392.9	401.7	411.3
162.5°	352.5	351.8	354.0	358.4	363.5	369.4	377.5	384.8	390.7	397.3	405.4
165°	357.7	357.7	359.1	362.8	366.5	370.9	377.5	383.4	387.8	392.9	398.8
167.5°	363.5	362.8	363.5	366.5	368.7	372.3	377.5	381.9	384.8	388.5	392.9
170°	367.2	366.5	367.2	369.4	370.9	373.1	376.7	380.4	381.9	384.1	387.0
172.5°	370.9	370.1	370.1	371.6	372.3	373.8	376.0	378.9	378.9	379.7	381.9
175°	373.1	372.3	372.3	373.1	373.8	373.8	375.3	377.5	376.7	376.7	378.2
177.5°	374.5	373.8	373.1	373.8	373.8	373.8	374.5	376.0	374.5	374.5	375.3
180°	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8

TEST NUMBER: P1007767

CATALOG NUMBER: S124IP-B810UB50-4F0-XX-W2A-4

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°	13.2	14.0	14.7	14.7	15.4	16.2	15.4	15.4
92.5°	177.0	132.2	104.3	85.9	74.9	69.8	66.8	66.8
95°	544.2	430.4	331.9	260.7	224.7	202.0	188.7	179.2
97.5°	783.6	727.1	646.3	564.0	514.1	470.0	448.0	430.4
100°	885.7	900.4	864.4	810.0	746.1	701.3	679.3	673.4
102.5°	880.5	967.9	990.0	975.3	942.2	912.9	889.4	884.9
105°	822.5	949.6	1022.3	1052.4	1053.9	1048.0	1037.7	1033.3
107.5°	751.3	888.6	990.0	1051.7	1084.0	1097.2	1103.1	1103.8
110°	688.1	815.2	921.7	1002.4	1054.6	1085.4	1098.7	1105.3

TEST NUMBER: P1007767

CATALOG NUMBER: S124IP-B810UB50-4F0-XX-W2A-4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	641.9	750.6	849.7	930.5	991.4	1030.4	1050.2	1061.9
115°	614.0	704.3	790.2	860.7	918.7	962.8	986.3	992.2
117.5°	597.8	674.2	743.9	805.6	857.0	895.2	920.2	923.9
120°	587.5	655.8	714.6	766.7	808.6	840.9	860.0	868.1
122.5°	578.7	644.1	696.2	740.3	774.1	800.5	815.9	824.0
125°	568.4	631.6	682.3	722.6	752.0	773.3	787.3	791.7
127.5°	556.7	617.6	668.3	706.5	735.9	755.0	766.7	771.1
130°	542.0	600.0	649.9	688.9	719.0	737.3	749.1	753.5
132.5°	526.6	580.2	628.6	667.6	696.9	718.2	729.3	733.7
135°	512.6	560.3	605.1	641.9	671.2	691.8	703.5	708.0
137.5°	499.4	541.2	580.2	614.0	641.9	663.2	672.7	677.8
140°	488.4	522.9	555.9	586.8	612.5	628.6	638.9	644.8
142.5°	478.1	507.5	534.6	560.3	582.4	597.1	605.9	609.5
145°	468.5	493.5	515.5	536.1	554.5	567.0	574.3	578.0
147.5°	460.5	481.0	499.4	516.3	530.2	541.2	547.1	548.6
150°	453.1	470.0	484.7	497.9	509.7	519.2	523.6	524.4
152.5°	445.0	459.0	472.2	482.5	492.0	499.4	501.6	502.3
155°	437.0	448.7	459.7	468.5	475.9	481.8	484.0	484.0
157.5°	428.2	438.4	448.0	455.3	461.2	465.6	467.1	467.1
160°	420.1	428.2	436.2	442.1	446.5	450.9	451.7	451.7
162.5°	412.0	418.6	424.5	429.6	432.6	437.0	437.7	437.0
165°	404.7	409.1	414.2	417.9	420.8	423.7	423.0	422.3
167.5°	397.3	401.0	405.4	407.6	409.1	411.3	411.3	410.5
170°	390.7	392.9	395.8	398.0	399.5	400.2	399.5	399.5
172.5°	384.8	386.3	387.8	389.2	390.0	390.7	390.0	388.5
175°	379.7	380.4	381.9	381.9	381.9	383.4	381.9	380.4
177.5°	376.0	376.7	376.7	377.5	376.7	377.5	376.0	374.5
180°	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8

(END OF REPORT)