

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: P332910

Luminaire Tested: **S124RDIP-S575D810U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332910
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIP-S575D810U835-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5584.7 lumens
Efficiency: N/A
Efficacy: 145.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

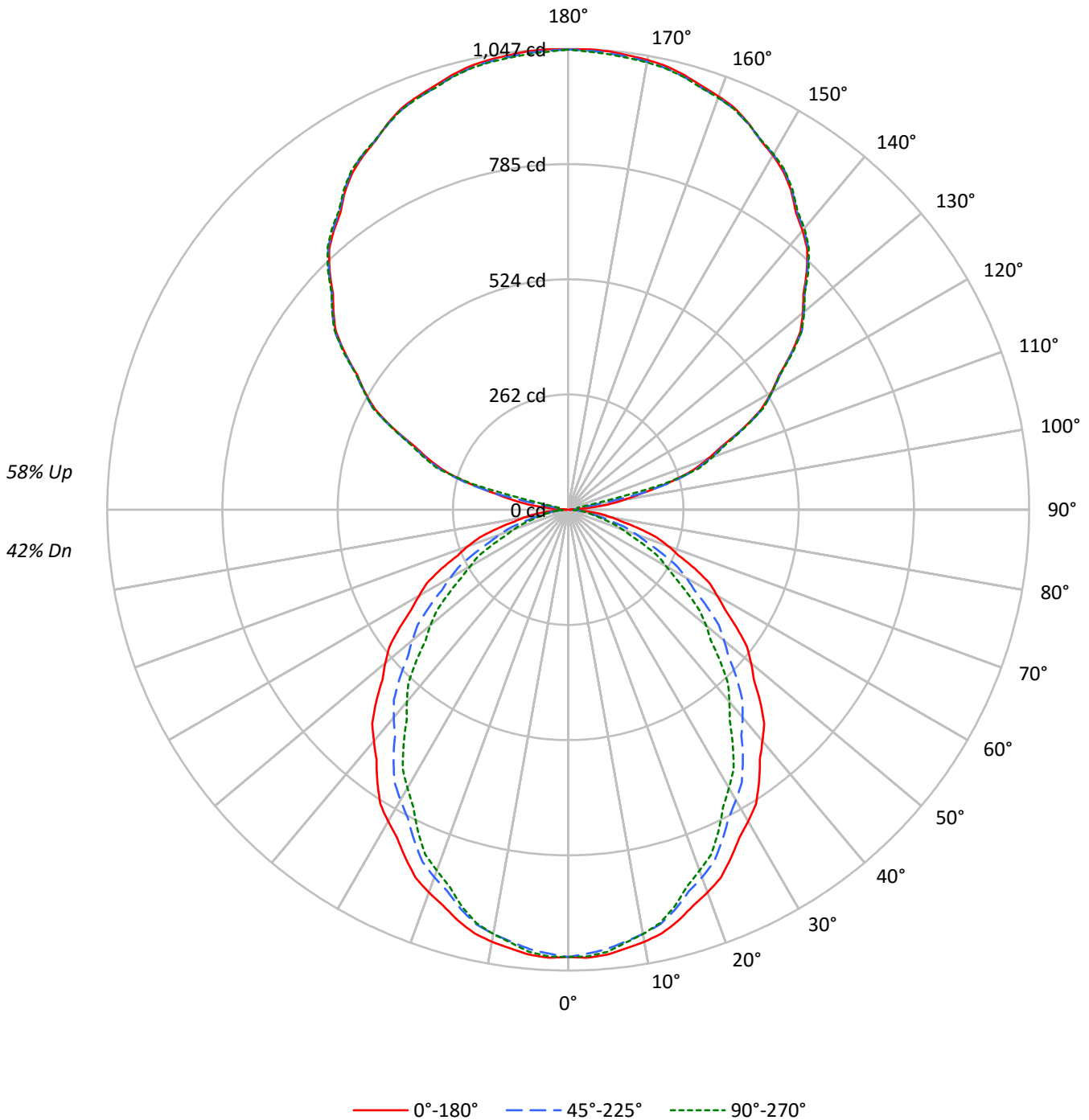
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	96	92	88	85	88	84	81	78	69	67	65	56	54	53	44	43	42	36
2	88	81	75	70	80	74	69	64	61	57	54	49	47	45	39	37	35	30
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	34	32	30	26
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	28	26	22
5	67	56	48	42	61	52	45	40	43	38	34	35	31	28	28	25	23	20
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	25	23	20	17
7	57	45	38	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	34	28	49	38	31	27	32	27	23	27	23	20	21	18	16	14
9	50	38	30	25	45	35	28	24	29	24	21	24	21	18	20	17	15	13
10	46	35	27	23	42	32	26	21	27	22	19	23	19	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8205	8205	8205
5°	8223	8122	8173
10°	8171	8025	8025
15°	8078	7856	7798
20°	7948	7635	7494
25°	7784	7375	7187
30°	7623	7101	6804
35°	7447	6818	6419
40°	7233	6495	6003
45°	7036	6174	5579
50°	6812	5805	5130
55°	6572	5422	4643
60°	6307	5000	4146
65°	6065	4474	3656
70°	5712	3895	3104
75°	5268	3228	2523
80°	4593	2459	2315
85°	3890	2232	2093



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	1.7
10°-20°	266.2	4.8
20°-30°	384.4	6.9
30°-40°	435.7	7.8
40°-50°	420.8	7.5
50°-60°	349.9	6.3
60°-70°	241.6	4.3
70°-80°	122.5	2.2
80°-90°	34.4	0.6
90°-100°	35.8	0.6
100°-110°	228.0	4.1
110°-120°	436.1	7.8
120°-130°	553.6	9.9
130°-140°	592.3	10.6
140°-150°	553.9	9.9
150°-160°	446.7	8.0
160°-170°	288.1	5.2
170°-180°	99.3	1.8
0°-30°	746.1	13.4
0°-40°	1181.8	21.2
0°-60°	1952.5	35.0
0°-90°	2351.0	42.1
90°-120°	699.8	12.5
90°-150°	2399.6	43.0
90°-180°	3234.0	57.9
0°-180°	5584.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1015	1011	1002	1010	1008	96
15°	966	959	940	938	933	272
25°	874	859	828	815	807	402
35°	756	730	692	666	651	472
45°	616	586	541	504	489	475
55°	467	435	385	346	330	418
65°	318	283	234	202	191	313
75°	169	140	104	86	81	178
85°	42	27	24	23	23	47
90°	2	11	17	22	24	4
95°	43	18	17	22	23	55
105°	235	240	244	249	223	246
115°	439	442	441	442	443	432
125°	618	621	619	622	622	551
135°	766	766	769	770	772	590
145°	884	886	886	887	888	552
155°	969	969	967	970	968	446
165°	1022	1018	1018	1024	1017	289
175°	1045	1041	1042	1048	1039	100
180°	1045	1045	1045	1045	1045	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3
2.5°	1018.8	1018.2	1017.7	1017.1	1016.6	1015.5	1014.0	1012.5	1010.9	1009.4	1010.9
5°	1014.7	1014.0	1013.3	1012.6	1012.0	1010.6	1008.5	1006.4	1004.3	1002.3	1004.0
7.5°	1005.5	1004.8	1004.1	1003.4	1002.6	1000.9	998.2	995.5	992.8	990.1	991.2
10°	996.8	996.0	995.1	994.2	993.4	991.4	988.3	985.1	982.0	978.9	979.6
12.5°	985.6	984.6	983.6	982.6	981.6	979.3	975.6	971.9	968.3	964.6	965.0
15°	966.5	964.9	963.4	961.8	960.2	957.3	953.0	948.7	944.3	940.0	939.7
17.5°	943.3	941.0	938.8	936.5	934.3	930.6	925.4	920.2	915.0	909.8	908.9
20°	925.2	923.0	920.7	918.5	916.2	912.2	906.3	900.4	894.5	888.7	887.3
22.5°	905.3	902.8	900.3	897.7	895.2	890.8	884.5	878.2	871.9	865.6	863.5
25°	873.9	870.8	867.6	864.5	861.4	856.3	849.2	842.1	835.0	828.0	825.0
27.5°	840.9	837.0	833.1	829.2	825.2	819.5	811.9	804.4	796.8	789.2	785.6
30°	817.8	813.5	809.2	804.9	800.6	794.3	786.2	778.1	769.9	761.8	757.5
32.5°	793.6	788.7	783.8	778.9	774.1	767.4	759.0	750.6	742.2	733.8	728.8
35°	755.6	750.1	744.5	739.0	733.5	726.4	717.7	709.1	700.4	691.8	685.9
37.5°	715.0	709.3	703.6	697.9	692.1	684.5	674.9	665.3	655.8	646.2	639.6
40°	686.3	680.6	674.9	669.2	663.5	655.7	645.9	636.0	626.2	616.3	609.0
42.5°	658.9	653.0	647.0	641.0	635.0	626.9	616.6	606.3	596.1	585.8	578.4
45°	616.3	609.9	603.5	597.1	590.7	582.3	571.9	561.6	551.2	540.8	532.3
47.5°	572.3	565.7	559.0	552.4	545.8	537.1	526.3	515.6	504.8	494.0	485.2
50°	542.4	535.6	528.9	522.1	515.4	506.5	495.4	484.4	473.3	462.2	453.6
52.5°	511.9	505.3	498.7	492.1	485.4	476.5	465.1	453.8	442.4	431.1	422.3
55°	466.9	460.0	453.1	446.1	439.2	430.1	418.9	407.7	396.4	385.2	376.2
57.5°	422.4	415.2	408.0	400.8	393.6	384.5	373.4	362.3	351.3	340.2	331.1
60°	390.6	383.7	376.8	369.9	363.0	354.0	342.9	331.8	320.8	309.7	300.7
62.5°	362.0	354.8	347.6	340.4	333.2	324.0	312.6	301.3	289.9	278.6	270.3
65°	317.5	310.1	302.6	295.2	287.7	278.5	267.4	256.4	245.3	234.2	226.8
67.5°	271.3	264.1	257.0	249.9	242.8	234.1	223.8	213.5	203.3	193.0	186.6
70°	242.0	234.7	227.5	220.2	213.0	204.4	194.5	184.7	174.8	165.0	159.3
72.5°	210.9	204.3	197.7	191.2	184.6	176.7	167.4	158.1	148.7	139.4	134.6
75°	168.9	162.5	156.1	149.7	143.3	136.0	127.9	119.7	111.6	103.5	99.5
77.5°	126.2	120.8	115.4	109.9	104.5	98.5	91.9	85.4	78.8	72.2	69.9
80°	98.8	93.8	88.8	83.8	78.8	73.7	68.5	63.3	58.1	52.9	52.4
82.5°	75.2	70.6	66.0	61.4	56.8	53.0	50.0	47.0	44.1	41.1	40.7
85°	42.0	38.6	35.1	31.6	28.2	26.2	25.7	25.2	24.6	24.1	23.8
87.5°	14.8	14.1	13.3	12.6	11.9	11.6	11.7	11.9	12.0	12.2	12.2
90°	2.3	4.3	6.2	8.1	10.0	11.6	13.0	14.4	15.8	17.2	18.2
92.5°	9.9	10.0	10.1	10.2	10.3	11.0	12.4	13.8	15.2	16.6	17.6
95°	43.0	37.1	31.2	25.3	19.4	16.5	16.7	16.9	17.0	17.2	18.2
97.5°	91.3	95.0	98.7	102.4	106.1	98.2	78.8	59.4	40.0	20.6	20.7
100°	128.2	131.4	134.5	137.6	140.7	130.3	106.3	82.4	58.4	34.4	31.4
102.5°	169.5	171.8	174.1	176.4	178.7	178.3	175.1	172.0	168.9	165.8	133.9
105°	235.3	236.4	237.4	238.5	239.5	240.5	241.3	242.2	243.1	243.9	245.5
107.5°	296.5	297.0	297.5	298.1	298.6	299.4	300.6	301.8	303.0	304.2	304.9
110°	337.8	338.3	338.8	339.3	339.9	340.6	341.7	342.7	343.8	344.8	345.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	377.8	378.7	379.7	380.6	381.6	382.3	382.8	383.2	383.7	384.2	384.2
115°	439.4	439.9	440.5	441.0	441.5	441.7	441.5	441.3	441.2	441.0	441.3
117.5°	494.9	495.6	496.3	497.0	497.7	498.3	498.6	499.0	499.4	499.8	499.7
120°	532.5	533.2	533.9	534.6	535.2	535.5	535.3	535.2	535.0	534.8	535.2
122.5°	567.5	567.9	568.3	568.7	569.2	569.5	569.7	570.0	570.2	570.5	570.7
125°	617.7	618.4	619.1	619.8	620.5	620.6	620.3	620.0	619.6	619.3	619.8
127.5°	665.2	665.4	665.6	665.8	665.9	666.4	667.2	668.0	668.8	669.6	669.5
130°	695.9	696.1	696.2	696.4	696.6	696.9	697.4	698.0	698.5	699.0	699.2
132.5°	724.0	724.3	724.7	725.0	725.3	725.8	726.4	727.1	727.7	728.4	728.6
135°	766.3	766.1	765.9	765.7	765.6	765.8	766.5	767.2	767.9	768.6	768.9
137.5°	803.6	803.7	803.8	803.8	803.9	804.3	805.1	805.9	806.6	807.4	807.8
140°	828.0	828.4	828.7	829.1	829.4	829.8	830.1	830.5	830.8	831.1	831.7
142.5°	849.9	850.5	851.2	851.8	852.4	852.8	853.0	853.3	853.5	853.7	854.1
145°	883.5	884.1	884.6	885.1	885.6	885.9	885.9	885.9	885.9	885.9	886.1
147.5°	910.3	911.3	912.2	913.2	914.2	914.6	914.4	914.2	914.0	913.9	914.0
150°	929.7	930.4	931.1	931.8	932.4	932.7	932.5	932.4	932.2	932.0	932.0
152.5°	945.9	946.5	947.0	947.6	948.2	948.3	948.0	947.7	947.3	947.0	947.3
155°	968.8	968.9	969.1	969.3	969.5	969.3	968.8	968.2	967.7	967.2	967.9
157.5°	988.0	987.9	987.8	987.7	987.6	987.2	986.6	986.1	985.5	984.9	985.8
160°	999.3	998.7	998.2	997.7	997.2	996.8	996.7	996.5	996.3	996.1	997.2
162.5°	1009.3	1008.6	1007.9	1007.3	1006.6	1006.2	1006.0	1005.9	1005.7	1005.5	1006.6
165°	1021.9	1021.1	1020.2	1019.3	1018.5	1018.0	1018.0	1018.0	1018.0	1018.0	1019.4
167.5°	1031.9	1031.0	1030.1	1029.2	1028.3	1027.8	1027.7	1027.6	1027.5	1027.4	1028.9
170°	1037.6	1036.5	1035.5	1034.4	1033.4	1033.0	1033.1	1033.3	1033.5	1033.7	1035.0
172.5°	1041.3	1040.3	1039.2	1038.2	1037.2	1036.7	1036.9	1037.1	1037.2	1037.4	1038.8
175°	1045.4	1044.3	1043.3	1042.3	1041.2	1040.8	1041.0	1041.1	1041.3	1041.5	1043.0
177.5°	1047.3	1046.3	1045.3	1044.3	1043.4	1043.0	1043.3	1043.6	1043.9	1044.1	1045.2
180°	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3	1016.3
2.5°	1012.5	1014.0	1015.5	1016.2	1016.1	1015.9	1015.8	1015.7
5°	1005.7	1007.5	1009.2	1009.9	1009.5	1009.2	1008.8	1008.5
7.5°	992.3	993.4	994.6	994.8	994.3	993.7	993.2	992.6
10°	980.3	981.0	981.7	981.7	981.0	980.3	979.6	978.9
12.5°	965.4	965.8	966.3	966.0	965.0	964.1	963.1	962.1
15°	939.3	939.0	938.6	937.9	936.6	935.4	934.2	933.0
17.5°	907.9	906.9	905.9	904.5	902.7	900.9	899.0	897.2
20°	885.9	884.5	883.1	881.3	879.1	876.8	874.6	872.3
22.5°	861.5	859.4	857.3	855.4	853.5	851.7	849.9	848.0
25°	822.1	819.1	816.2	813.9	812.1	810.4	808.7	806.9
27.5°	781.9	778.3	774.7	771.6	769.1	766.6	764.2	761.7
30°	753.2	748.8	744.5	741.0	738.2	735.4	732.7	729.9
32.5°	723.8	718.8	713.7	709.9	707.3	704.7	702.0	699.4
35°	680.0	674.1	668.3	663.8	660.7	657.5	654.4	651.3
37.5°	633.0	626.5	619.9	615.1	611.9	608.8	605.7	602.6
40°	601.8	594.5	587.2	582.1	578.9	575.8	572.7	569.6
42.5°	571.0	563.6	556.2	550.9	547.6	544.4	541.1	537.9
45°	523.9	515.4	506.9	501.1	498.0	494.9	491.8	488.7
47.5°	476.4	467.6	458.8	452.7	449.3	445.9	442.5	439.0
50°	444.9	436.3	427.6	421.7	418.4	415.1	411.8	408.5
52.5°	413.5	404.7	396.0	389.9	386.4	383.0	379.6	376.2
55°	367.2	358.2	349.2	343.1	339.8	336.5	333.2	329.9
57.5°	321.9	312.8	303.7	297.9	295.4	292.9	290.4	287.9
60°	291.7	282.7	273.7	267.9	265.1	262.3	259.6	256.8
62.5°	262.0	253.7	245.4	240.1	237.9	235.7	233.5	231.3
65°	219.4	211.9	204.5	199.7	197.7	195.6	193.5	191.4
67.5°	180.2	173.8	167.4	163.1	160.8	158.5	156.2	153.9
70°	153.6	147.9	142.1	138.4	136.7	135.0	133.2	131.5
72.5°	129.7	124.8	119.9	116.7	115.1	113.5	111.9	110.3
75°	95.5	91.6	87.6	85.1	84.0	83.0	82.0	80.9
77.5°	67.6	65.3	62.9	61.6	61.3	61.0	60.7	60.4
80°	51.9	51.4	50.8	50.5	50.3	50.1	50.0	49.8
82.5°	40.3	39.9	39.6	39.3	39.1	38.9	38.8	38.6
85°	23.4	23.1	22.7	22.6	22.6	22.6	22.6	22.6
87.5°	12.3	12.4	12.4	12.6	12.8	13.0	13.2	13.4
90°	19.3	20.3	21.4	22.1	22.4	22.8	23.1	23.5
92.5°	18.7	19.7	20.7	21.3	21.4	21.4	21.5	21.6
95°	19.3	20.3	21.4	22.0	22.2	22.3	22.5	22.7
97.5°	20.9	21.0	21.1	21.2	21.4	21.5	21.7	21.9
100°	28.5	25.5	22.6	21.2	21.4	21.5	21.7	21.9
102.5°	102.0	70.2	38.3	22.4	22.4	22.4	22.5	22.5
105°	247.1	248.6	250.2	247.9	241.6	235.3	229.1	222.8
107.5°	305.7	306.4	307.2	307.9	308.6	309.2	309.9	310.6
110°	345.5	345.9	346.2	346.6	347.2	347.7	348.2	348.7



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CATALOG NUMBER: S124RDIP-S575D810U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	384.1	384.0	383.9	384.2	384.9	385.6	386.2	386.9
115°	441.7	442.0	442.4	442.6	442.6	442.6	442.6	442.6
117.5°	499.6	499.6	499.5	499.4	499.4	499.3	499.2	499.2
120°	535.5	535.9	536.2	536.2	535.9	535.5	535.2	534.8
122.5°	570.9	571.1	571.3	571.2	570.9	570.5	570.2	569.8
125°	620.3	620.8	621.3	621.7	621.9	622.0	622.2	622.4
127.5°	669.4	669.3	669.2	669.1	668.9	668.8	668.7	668.5
130°	699.4	699.5	699.7	699.8	699.8	699.8	699.8	699.8
132.5°	728.8	728.9	729.1	729.1	729.0	728.8	728.7	728.6
135°	769.3	769.6	770.0	770.3	770.7	771.0	771.4	771.7
137.5°	808.1	808.5	808.9	809.0	808.9	808.8	808.7	808.6
140°	832.2	832.7	833.2	833.6	833.8	833.9	834.1	834.3
142.5°	854.4	854.8	855.2	855.4	855.4	855.5	855.5	855.5
145°	886.2	886.4	886.6	886.8	887.2	887.5	887.9	888.2
147.5°	914.2	914.3	914.4	914.6	914.8	914.9	915.1	915.3
150°	932.0	932.0	932.0	932.1	932.3	932.4	932.6	932.8
152.5°	947.6	947.9	948.1	948.2	948.1	948.0	947.9	947.8
155°	968.6	969.3	970.0	970.1	969.5	969.0	968.5	968.0
157.5°	986.7	987.6	988.5	988.5	987.6	986.7	985.8	984.9
160°	998.2	999.3	1000.3	1000.3	999.3	998.2	997.2	996.1
162.5°	1007.6	1008.6	1009.7	1009.6	1008.4	1007.2	1006.1	1004.9
165°	1020.8	1022.2	1023.6	1023.5	1021.9	1020.4	1018.8	1017.2
167.5°	1030.5	1032.0	1033.5	1033.4	1031.7	1029.9	1028.2	1026.5
170°	1036.4	1037.8	1039.2	1039.0	1037.3	1035.6	1033.8	1032.1
172.5°	1040.2	1041.6	1043.0	1042.7	1040.9	1039.0	1037.1	1035.2
175°	1044.6	1046.2	1047.7	1047.5	1045.4	1043.3	1041.2	1039.1
177.5°	1046.4	1047.5	1048.6	1048.3	1046.6	1045.0	1043.3	1041.6
180°	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4	1045.4

(END OF REPORT)