

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: P332759-935

Luminaire Tested: **S124DIW-S575D1050U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332759-935
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: S124DIW-S575D1050U935-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5650.7 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

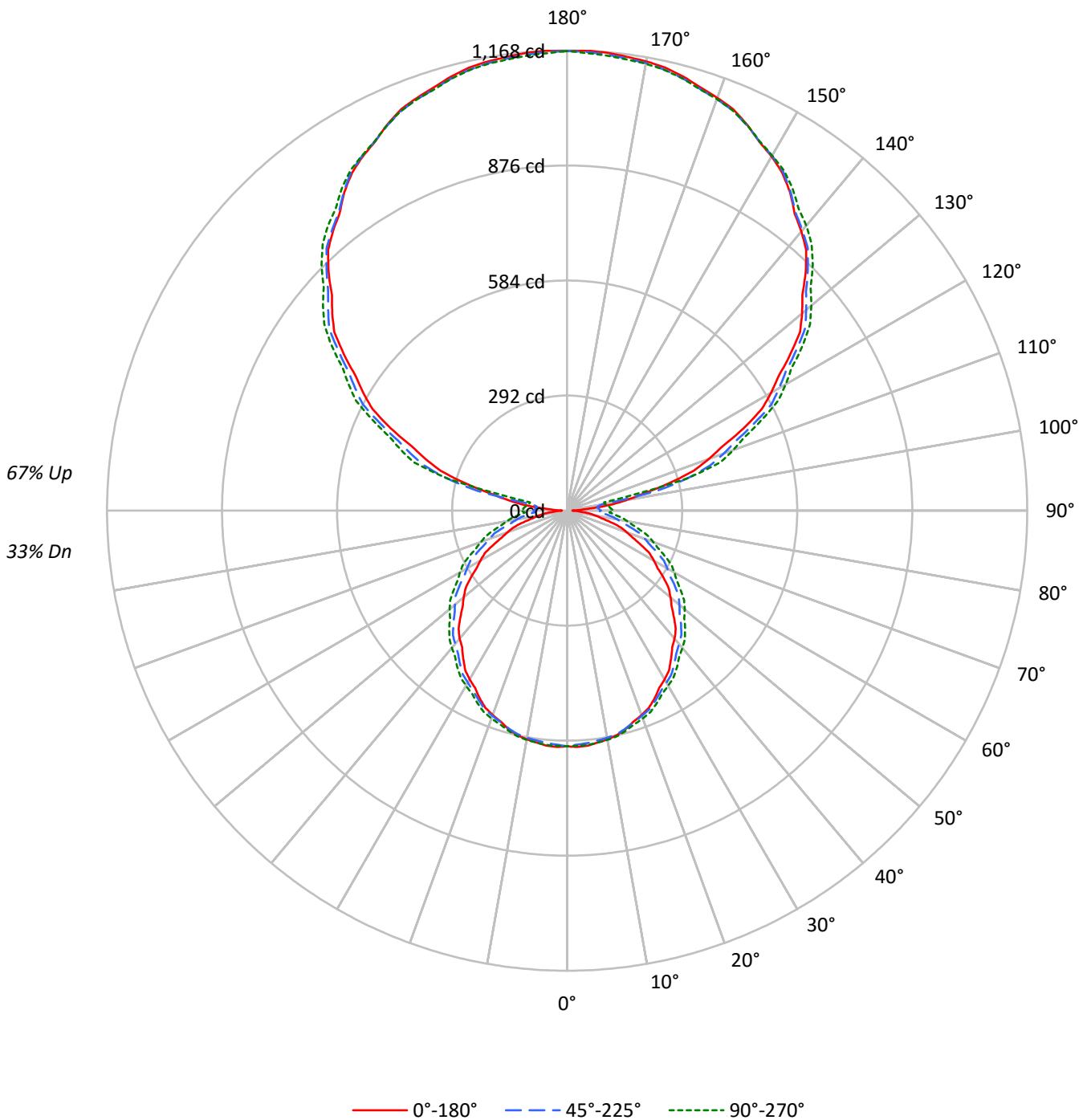
Input Watts (W): 45.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41
1	93	89	85	81	84	80	77	74	64	61	59	49	47	46	35	34	33
2	85	77	71	66	76	70	64	60	55	52	48	42	40	38	30	29	27
3	77	68	60	54	69	61	55	50	49	44	40	37	34	31	27	25	23
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20
5	64	53	45	39	58	48	41	36	38	33	29	29	26	23	21	19	17
6	59	47	39	33	53	43	36	31	34	29	25	27	23	20	19	17	15
7	55	42	35	29	49	38	32	27	31	26	22	24	20	17	17	15	13
8	51	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	12
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10
10	44	32	25	20	39	29	23	18	24	19	15	18	15	12	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	1.0
10°-20°	162.3	2.9
20°-30°	245.5	4.3
30°-40°	297.0	5.3
40°-50°	314.0	5.6
50°-60°	295.5	5.2
60°-70°	245.2	4.3
70°-80°	172.2	3.0
80°-90°	100.7	1.8
90°-100°	97.7	1.7
100°-110°	297.1	5.3
110°-120°	515.3	9.1
120°-130°	633.9	11.2
130°-140°	667.8	11.8
140°-150°	619.4	11.0
150°-160°	498.4	8.8
160°-170°	321.4	5.7
170°-180°	110.8	2.0
0°-30°	464.5	8.2
0°-40°	761.4	13.5
0°-60°	1370.9	24.3
0°-90°	1888.9	33.4
90°-120°	910.1	16.1
90°-150°	2831.2	50.1
90°-180°	3762.0	66.6
0°-180°	5650.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	13	50	86	109	117	9
95°	57	51	78	100	108	69
105°	269	288	316	338	315	282
115°	494	504	524	539	545	487
125°	692	695	710	724	730	618
135°	856	856	864	876	882	660
145°	986	988	988	993	998	616
155°	1081	1082	1079	1082	1080	498
165°	1140	1136	1136	1142	1135	322
175°	1166	1161	1162	1169	1159	111
180°	1166	1166	1166	1166	1166	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.3	26.9	33.3	39.9	46.3	53.0	59.8	66.7	73.5	80.3	84.9
90°	13.3	21.4	29.5	37.6	45.7	53.7	61.6	69.7	77.6	85.5	91.0
92.5°	21.2	26.7	32.1	37.6	43.0	49.8	57.8	65.7	73.6	81.6	87.0
95°	56.7	55.0	53.3	51.7	49.9	52.3	58.5	64.9	71.2	77.5	82.7
97.5°	109.8	118.1	126.5	134.8	143.2	139.5	123.9	108.3	92.7	77.1	81.2
100°	150.4	157.8	165.1	172.5	179.9	173.1	152.1	131.2	110.2	89.3	90.1
102.5°	196.5	202.4	208.4	214.4	220.3	224.4	226.6	228.8	231.0	233.2	201.6
105°	268.6	272.8	276.9	281.0	285.2	290.5	297.0	303.4	309.9	316.4	321.8
107.5°	336.7	339.8	342.8	345.8	348.8	353.5	360.1	366.6	373.2	379.7	384.2
110°	382.2	384.9	387.5	390.2	392.9	397.4	403.8	410.2	416.6	422.9	426.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	426.4	429.2	432.1	435.1	437.9	442.1	447.6	453.1	458.7	464.2	467.4
115°	494.3	496.2	498.1	500.1	502.0	505.2	509.8	514.4	518.9	523.5	527.2
117.5°	556.1	557.7	559.2	560.9	562.4	565.6	570.5	575.3	580.2	585.0	588.1
120°	597.4	598.7	599.9	601.1	602.3	604.9	609.1	613.2	617.3	621.5	624.8
122.5°	636.5	637.1	637.6	638.2	638.7	641.2	645.5	649.9	654.2	658.6	661.8
125°	691.8	692.5	693.1	693.7	694.3	696.3	699.6	703.0	706.4	709.6	713.1
127.5°	744.8	744.8	744.9	744.9	744.9	746.8	750.5	754.3	758.0	761.8	764.4
130°	778.4	778.4	778.5	778.5	778.6	780.1	783.1	786.0	788.9	791.9	794.8
132.5°	809.8	810.0	810.2	810.4	810.6	812.0	814.7	817.3	819.9	822.6	825.4
135°	856.3	856.0	855.8	855.7	855.5	856.3	858.1	859.9	861.7	863.6	866.3
137.5°	897.9	897.9	897.8	897.8	897.7	898.3	899.7	901.0	902.4	903.7	906.4
140°	925.1	925.4	925.7	925.8	926.1	926.5	927.0	927.6	928.1	928.7	931.2
142.5°	949.1	949.7	950.4	951.1	951.7	952.1	952.3	952.4	952.5	952.7	954.8
145°	986.4	986.9	987.3	987.7	988.2	988.3	988.3	988.3	988.3	988.3	989.5
147.5°	1016.2	1017.2	1018.1	1019.1	1020.0	1020.4	1020.2	1020.0	1019.8	1019.6	1019.9
150°	1037.8	1038.5	1039.1	1039.7	1040.4	1040.6	1040.4	1040.3	1040.0	1039.8	1039.8
152.5°	1055.5	1056.1	1056.7	1057.3	1057.8	1058.0	1057.7	1057.3	1057.0	1056.6	1056.9
155°	1080.8	1081.1	1081.2	1081.4	1081.6	1081.4	1080.8	1080.3	1079.7	1079.1	1079.9
157.5°	1102.3	1102.2	1102.1	1101.9	1101.8	1101.5	1100.8	1100.1	1099.5	1098.8	1099.8
160°	1114.8	1114.3	1113.7	1113.1	1112.5	1112.2	1112.0	1111.7	1111.6	1111.4	1112.5
162.5°	1126.0	1125.3	1124.6	1123.8	1123.1	1122.6	1122.4	1122.2	1122.1	1121.8	1123.0
165°	1140.1	1139.2	1138.2	1137.2	1136.3	1135.8	1135.8	1135.8	1135.8	1135.8	1137.4
167.5°	1151.3	1150.3	1149.3	1148.3	1147.3	1146.8	1146.6	1146.5	1146.4	1146.2	1148.0
170°	1157.6	1156.4	1155.3	1154.1	1153.0	1152.4	1152.6	1152.9	1153.1	1153.2	1154.8
172.5°	1161.7	1160.6	1159.4	1158.3	1157.1	1156.7	1156.8	1157.0	1157.3	1157.4	1159.0
175°	1166.3	1165.2	1164.0	1162.9	1161.7	1161.2	1161.4	1161.6	1161.7	1162.0	1163.7
177.5°	1168.4	1167.3	1166.2	1165.2	1164.1	1163.7	1164.0	1164.3	1164.6	1164.9	1166.1
180°	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	89.5	94.0	98.6	101.5	102.9	104.3	105.6	107.1
90°	96.5	101.9	107.5	111.0	112.5	114.2	115.7	117.3
92.5°	92.3	97.7	103.1	106.3	107.6	108.9	110.2	111.4
95°	87.8	93.0	98.2	101.6	103.1	104.6	106.2	107.7
97.5°	85.2	89.2	93.2	96.0	97.5	98.9	100.4	101.9
100°	90.7	91.4	92.2	93.2	94.5	95.7	96.9	98.2
102.5°	169.9	138.2	106.6	91.4	92.6	93.8	95.0	96.2
105°	327.4	332.8	338.3	338.1	332.3	326.5	320.7	315.0
107.5°	388.7	393.2	397.7	400.9	402.7	404.5	406.3	408.1
110°	430.5	434.3	438.2	440.9	442.7	444.4	446.3	448.1



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CATALOG NUMBER: S124DIW-S575D1050U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	470.6	473.9	477.1	479.7	481.6	483.5	485.4	487.4
115°	530.8	534.5	538.1	540.5	541.6	542.6	543.6	544.7
117.5°	591.1	594.1	597.2	599.3	600.3	601.4	602.5	603.6
120°	628.2	631.5	634.9	637.1	637.8	638.6	639.5	640.2
122.5°	665.0	668.2	671.4	673.4	674.1	674.8	675.5	676.1
125°	716.4	719.9	723.3	725.6	726.6	727.7	728.8	729.9
127.5°	767.0	769.5	772.1	773.8	774.6	775.5	776.4	777.2
130°	797.7	800.6	803.4	805.3	806.2	807.1	808.0	808.9
132.5°	828.1	830.9	833.6	835.3	836.1	836.8	837.6	838.3
135°	869.1	871.8	874.6	876.7	878.0	879.3	880.5	881.8
137.5°	909.0	911.5	914.1	915.8	916.4	917.0	917.7	918.3
140°	933.7	936.2	938.7	940.5	941.4	942.3	943.2	944.2
142.5°	956.9	959.1	961.2	962.6	963.3	963.9	964.6	965.3
145°	990.6	991.6	992.7	993.8	994.7	995.7	996.7	997.7
147.5°	1020.1	1020.5	1020.7	1021.1	1021.8	1022.5	1023.2	1023.8
150°	1039.8	1039.8	1039.8	1039.9	1040.1	1040.3	1040.5	1040.7
152.5°	1057.2	1057.5	1057.8	1057.9	1057.8	1057.7	1057.6	1057.5
155°	1080.6	1081.4	1082.2	1082.3	1081.7	1081.2	1080.6	1080.0
157.5°	1100.8	1101.8	1102.9	1102.9	1101.8	1100.8	1099.8	1098.8
160°	1113.7	1114.8	1116.0	1116.0	1114.8	1113.7	1112.5	1111.4
162.5°	1124.1	1125.3	1126.4	1126.4	1125.1	1123.8	1122.5	1121.1
165°	1138.9	1140.5	1142.0	1141.9	1140.1	1138.4	1136.7	1134.9
167.5°	1149.7	1151.4	1153.1	1153.0	1151.1	1149.1	1147.2	1145.2
170°	1156.3	1157.9	1159.4	1159.3	1157.3	1155.4	1153.4	1151.5
172.5°	1160.5	1162.1	1163.6	1163.4	1161.2	1159.2	1157.1	1154.9
175°	1165.4	1167.2	1169.0	1168.6	1166.3	1164.0	1161.7	1159.3
177.5°	1167.4	1168.6	1169.9	1169.6	1167.7	1165.9	1164.0	1162.2
180°	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3	1166.3

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