

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: P332753

Luminaire Tested: **S124DIW-S575D770U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332753
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-S575D770U835-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5441.6 lumens
Efficiency: N/A
Efficacy: 144.7 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: General Diffuse

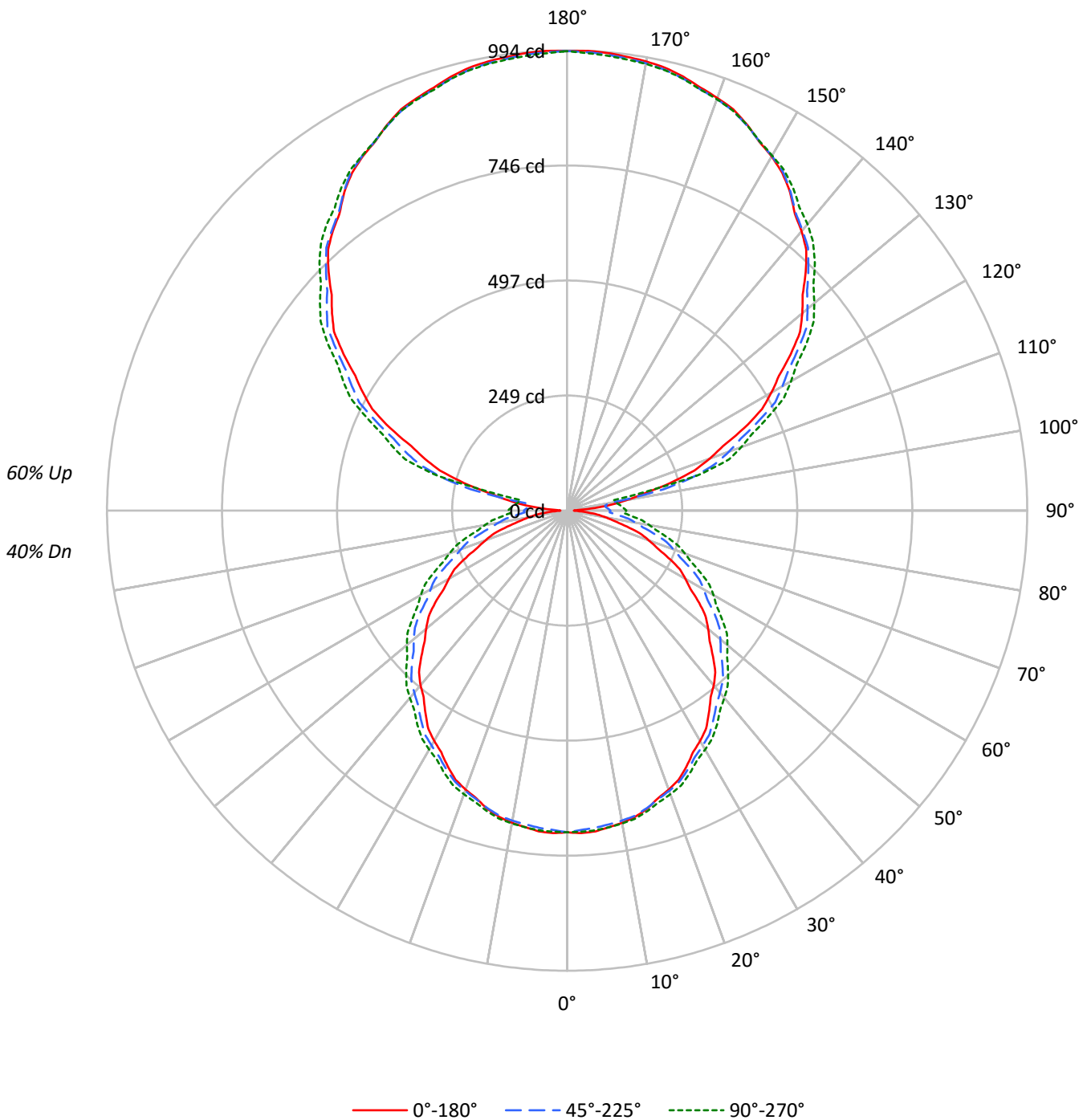
Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: S124DIW-S575D770U835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332753

CATALOG NUMBER: S124DIW-S575D770U835-4F0-1E-UDD-D

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	50	30	10	0	
RCR																						
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	95	90	86	82	86	82	79	75	67	65	62	53	51	50	40	39	38	32				
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26				
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	28	26	22				
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19				
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	24	22	19	16				
6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17	14				
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15	12				
8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	18	16	13	11				
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10				
10	45	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11	9				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5610	5610	5610
5°	5628	5483	5498
10°	5593	5393	5388
15°	5543	5289	5260
20°	5467	5175	5135
25°	5382	5046	4997
30°	5290	4919	4856
35°	5185	4787	4732
40°	5102	4663	4603
45°	4978	4549	4492
50°	4873	4416	4375
55°	4765	4291	4237
60°	4596	4132	4112
65°	4410	3962	3958
70°	4186	3768	3778
75°	3872	3553	3616
80°	3526	3347	3457
85°	3082	3163	3364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	1.2
10°-20°	188.5	3.5
20°-30°	285.1	5.2
30°-40°	344.9	6.3
40°-50°	364.7	6.7
50°-60°	343.2	6.3
60°-70°	284.7	5.2
70°-80°	200.0	3.7
80°-90°	115.9	2.1
90°-100°	101.1	1.9
100°-110°	266.1	4.9
110°-120°	447.4	8.2
120°-130°	544.4	10.0
130°-140°	570.5	10.5
140°-150°	527.5	9.7
150°-160°	424.1	7.8
160°-170°	273.5	5.0
170°-180°	94.3	1.7
0°-30°	539.4	9.9
0°-40°	884.4	16.3
0°-60°	1592.2	29.3
0°-90°	2192.9	40.3
90°-120°	814.6	15.0
90°-150°	2456.9	45.2
90°-180°	3249.0	59.7
0°-180°	5441.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	696	693	688	694	693	66
15°	667	668	665	672	672	188
25°	610	615	617	625	626	281
35°	534	543	551	561	564	334
45°	445	460	475	487	492	344
55°	349	365	388	403	408	311
65°	241	266	293	311	318	239
75°	134	163	195	216	224	142
85°	41	74	109	131	140	44
90°	15	54	93	119	128	10
95°	51	53	84	109	117	61
105°	230	251	283	306	289	242
115°	422	432	455	473	479	415
125°	590	593	610	626	632	526
135°	729	729	737	750	757	562
145°	840	841	841	846	851	525
155°	920	920	918	921	919	424
165°	970	967	966	972	966	274
175°	992	988	989	995	986	94
180°	992	992	992	992	992	



TEST NUMBER: P332753

CATALOG NUMBER: S124DIW-S575D770U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	697.4	697.0	696.6	696.1	695.7	695.0	693.9	692.8	691.6	690.5	691.5
5°	695.7	695.2	694.6	694.1	693.6	692.7	691.5	690.3	689.1	687.9	689.3
7.5°	689.8	689.4	689.1	688.8	688.5	687.9	686.9	685.9	684.8	683.8	685.4
10°	684.8	684.6	684.4	684.3	684.1	683.6	682.7	681.8	681.0	680.1	681.7
12.5°	677.9	677.9	677.9	677.8	677.8	677.5	676.9	676.3	675.7	675.1	676.5
15°	666.9	667.1	667.2	667.4	667.6	667.4	666.9	666.4	665.8	665.3	666.9
17.5°	651.8	652.3	652.8	653.3	653.9	654.1	654.0	653.9	653.8	653.7	655.2
20°	641.2	641.7	642.2	642.8	643.3	643.6	643.8	644.0	644.1	644.3	646.0
22.5°	629.4	630.0	630.7	631.3	632.0	632.5	632.8	633.1	633.4	633.7	635.5
25°	610.1	611.1	612.2	613.2	614.2	615.0	615.5	616.0	616.6	617.1	619.0
27.5°	588.6	590.1	591.6	593.2	594.7	595.8	596.6	597.4	598.2	599.0	600.8
30°	574.3	575.7	577.0	578.4	579.8	581.1	582.3	583.5	584.7	586.0	587.9
32.5°	558.7	560.4	562.0	563.7	565.4	566.9	568.2	569.6	570.9	572.3	574.4
35°	533.8	535.9	538.0	540.0	542.1	544.0	545.7	547.5	549.2	550.9	553.4
37.5°	508.8	511.1	513.5	515.9	518.3	520.6	522.7	524.9	527.0	529.1	531.6
40°	492.6	494.8	497.1	499.3	501.6	503.9	506.3	508.7	511.2	513.6	516.2
42.5°	473.9	476.4	478.9	481.5	484.0	486.7	489.5	492.3	495.2	498.0	500.9
45°	445.1	448.4	451.7	455.0	458.2	461.5	464.8	468.1	471.4	474.7	477.6
47.5°	417.6	420.9	424.3	427.7	431.1	434.7	438.5	442.3	446.1	449.9	453.0
50°	397.6	401.4	405.2	409.1	412.9	416.7	420.5	424.3	428.1	431.9	435.3
52.5°	377.7	381.5	385.3	389.1	392.9	397.0	401.4	405.7	410.1	414.4	417.9
55°	348.6	352.2	355.9	359.5	363.1	367.5	372.7	377.9	383.1	388.3	391.8
57.5°	316.1	320.6	325.1	329.6	334.1	338.9	344.0	349.2	354.4	359.5	363.6
60°	294.9	299.4	303.9	308.4	312.9	318.0	323.7	329.4	335.1	340.8	344.8
62.5°	274.4	279.3	284.2	289.1	294.0	299.3	305.0	310.7	316.5	322.2	326.1
65°	241.2	246.8	252.3	257.8	263.4	269.1	274.9	280.8	286.7	292.6	296.9
67.5°	209.3	215.2	221.1	227.0	232.8	238.9	245.2	251.5	257.8	264.1	268.5
70°	187.5	193.4	199.3	205.2	211.1	217.3	223.8	230.4	237.0	243.6	248.2
72.5°	166.4	172.4	178.4	184.4	190.4	196.9	203.9	210.9	217.9	224.9	229.4
75°	133.8	140.2	146.6	153.0	159.4	166.3	173.5	180.8	188.1	195.3	200.2
77.5°	103.5	110.3	117.1	123.8	130.6	137.8	145.4	153.0	160.6	168.2	173.1
80°	84.8	91.7	98.7	105.6	112.5	119.7	127.4	135.0	142.6	150.2	155.4
82.5°	66.1	73.3	80.5	87.7	94.9	102.3	109.9	117.5	125.1	132.8	138.1
85°	41.2	48.5	55.8	63.0	70.3	77.8	85.6	93.4	101.2	108.9	114.1
87.5°	23.5	30.9	38.3	45.7	53.2	60.8	68.6	76.5	84.3	92.1	97.3
90°	14.7	23.4	32.1	40.9	49.6	58.3	67.1	75.9	84.6	93.4	99.4
92.5°	21.2	27.5	33.8	40.2	46.5	54.0	62.8	71.5	80.3	89.0	94.9
95°	50.9	51.0	51.1	51.2	51.3	55.0	62.3	69.5	76.8	84.0	89.7
97.5°	95.9	104.3	112.7	121.1	129.5	128.0	116.6	105.2	93.9	82.5	87.1
100°	130.3	137.8	145.2	152.7	160.2	155.9	139.9	123.8	107.8	91.8	93.7
102.5°	169.5	175.6	181.7	187.8	194.0	198.8	202.5	206.1	209.8	213.4	187.7
105°	230.4	234.9	239.3	243.8	248.2	254.1	261.3	268.5	275.7	283.0	288.8
107.5°	288.3	291.7	295.0	298.3	301.6	306.9	314.1	321.2	328.4	335.6	340.6
110°	326.9	329.8	332.7	335.6	338.6	343.5	350.6	357.6	364.7	371.7	376.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	364.3	367.3	370.3	373.4	376.4	381.1	387.3	393.5	399.8	406.0	409.8
115°	421.8	423.9	425.9	428.0	430.0	433.7	439.1	444.5	449.9	455.2	459.4
117.5°	474.4	476.0	477.6	479.2	480.8	484.3	489.8	495.3	500.9	506.4	509.9
120°	509.4	510.6	511.7	512.9	514.1	517.1	522.0	526.8	531.7	536.5	540.3
122.5°	542.6	543.1	543.6	544.1	544.6	547.4	552.3	557.3	562.3	567.3	570.9
125°	589.5	590.0	590.5	591.0	591.5	593.7	597.7	601.7	605.7	609.7	613.5
127.5°	634.5	634.5	634.5	634.5	634.5	636.5	640.6	644.7	648.7	652.8	655.8
130°	663.0	663.0	663.0	662.9	662.9	664.6	667.8	671.1	674.3	677.6	680.9
132.5°	689.7	689.8	689.9	690.1	690.2	691.7	694.5	697.4	700.2	703.0	706.2
135°	729.0	728.8	728.7	728.5	728.3	729.2	731.1	732.9	734.8	736.7	739.8
137.5°	764.5	764.4	764.3	764.2	764.1	764.7	766.0	767.3	768.6	769.9	772.8
140°	787.6	787.8	788.0	788.1	788.3	788.6	789.1	789.6	790.1	790.6	793.3
142.5°	807.8	808.4	808.9	809.5	810.0	810.4	810.5	810.6	810.6	810.7	813.1
145°	839.6	839.9	840.2	840.5	840.8	841.0	841.0	841.0	841.0	841.0	842.2
147.5°	864.9	865.7	866.4	867.2	868.0	868.2	868.1	867.9	867.7	867.6	867.9
150°	883.4	883.8	884.3	884.8	885.3	885.5	885.3	885.1	885.0	884.8	884.8
152.5°	898.2	898.7	899.2	899.7	900.1	900.2	899.9	899.7	899.4	899.1	899.3
155°	919.7	919.9	920.0	920.2	920.4	920.2	919.7	919.2	918.7	918.2	918.9
157.5°	938.0	937.9	937.8	937.7	937.6	937.2	936.7	936.1	935.5	935.0	935.8
160°	948.6	948.1	947.7	947.2	946.7	946.3	946.2	946.0	945.8	945.7	946.7
162.5°	958.1	957.5	956.9	956.3	955.6	955.2	955.1	954.9	954.7	954.6	955.6
165°	970.2	969.3	968.5	967.7	966.9	966.5	966.5	966.5	966.5	966.5	967.8
167.5°	979.7	978.8	978.0	977.1	976.2	975.8	975.7	975.6	975.5	975.4	976.8
170°	985.0	984.0	983.0	982.0	981.1	980.6	980.8	981.0	981.1	981.3	982.6
172.5°	988.6	987.6	986.6	985.6	984.6	984.2	984.4	984.5	984.7	984.9	986.2
175°	992.4	991.4	990.5	989.5	988.5	988.1	988.2	988.4	988.6	988.7	990.2
177.5°	994.2	993.3	992.4	991.4	990.5	990.2	990.5	990.7	991.0	991.2	992.3
180°	992.4	992.4	992.4	992.4	992.4	992.4	992.4	992.4	992.4	992.4	992.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	692.5	693.4	694.4	694.8	694.7	694.5	694.4	694.3
5°	690.7	692.0	693.4	694.0	693.9	693.7	693.5	693.3
7.5°	687.0	688.5	690.1	690.8	690.6	690.4	690.2	690.1
10°	683.2	684.8	686.3	687.0	686.9	686.7	686.5	686.3
12.5°	678.0	679.4	680.8	681.5	681.5	681.4	681.4	681.4
15°	668.4	670.0	671.5	672.2	672.1	671.9	671.7	671.5
17.5°	656.8	658.4	660.0	660.7	660.6	660.5	660.3	660.2
20°	647.8	649.5	651.2	652.1	652.1	652.1	652.1	652.1
22.5°	637.2	638.9	640.6	641.7	641.9	642.2	642.5	642.8
25°	620.9	622.8	624.7	625.7	625.9	626.1	626.2	626.4
27.5°	602.6	604.3	606.1	607.1	607.3	607.5	607.7	607.9
30°	589.8	591.7	593.6	594.7	595.0	595.4	595.7	596.1
32.5°	576.6	578.8	581.0	582.2	582.6	582.9	583.3	583.6
35°	555.8	558.2	560.6	562.1	562.6	563.1	563.6	564.2
37.5°	534.1	536.5	539.0	540.5	541.0	541.6	542.1	542.7
40°	518.8	521.4	524.0	525.6	526.3	527.0	527.7	528.4
42.5°	503.8	506.6	509.5	511.2	511.8	512.3	512.9	513.4
45°	480.6	483.5	486.4	488.3	489.2	490.1	490.9	491.8
47.5°	456.0	459.1	462.1	464.1	465.2	466.2	467.3	468.3
50°	438.8	442.3	445.7	448.0	449.0	450.0	451.1	452.1
52.5°	421.4	424.8	428.3	430.5	431.6	432.6	433.6	434.7
55°	395.2	398.7	402.1	404.4	405.4	406.5	407.5	408.5
57.5°	367.7	371.9	376.0	378.5	379.5	380.4	381.4	382.4
60°	348.8	352.8	356.7	359.4	360.8	362.2	363.6	365.0
62.5°	330.1	334.1	338.1	340.7	342.1	343.5	344.9	346.3
65°	301.2	305.6	309.9	312.7	314.1	315.5	316.9	318.3
67.5°	272.9	277.3	281.7	284.5	285.9	287.2	288.6	289.9
70°	252.9	257.6	262.2	265.2	266.4	267.6	268.8	270.0
72.5°	233.9	238.5	243.0	245.9	247.3	248.6	250.0	251.3
75°	205.0	209.8	214.7	217.9	219.4	221.0	222.6	224.1
77.5°	178.1	183.0	187.9	191.2	192.8	194.5	196.1	197.8
80°	160.6	165.7	170.9	174.2	175.6	177.0	178.4	179.8
82.5°	143.4	148.7	154.1	157.5	159.0	160.5	162.0	163.6
85°	119.3	124.5	129.7	133.2	134.9	136.6	138.3	140.1
87.5°	102.6	107.8	113.0	116.4	118.0	119.6	121.1	122.7
90°	105.4	111.4	117.4	121.2	123.0	124.7	126.4	128.1
92.5°	100.8	106.6	112.5	116.2	117.6	119.1	120.5	122.0
95°	95.3	101.0	106.7	110.4	112.1	113.8	115.5	117.2
97.5°	91.7	96.4	101.0	104.1	105.8	107.4	109.1	110.7
100°	95.5	97.4	99.3	100.9	102.3	103.6	105.0	106.4
102.5°	161.9	136.2	110.5	98.3	99.7	101.1	102.5	103.9
105°	294.6	300.4	306.2	306.8	302.3	297.7	293.1	288.6
107.5°	345.6	350.5	355.5	358.9	360.8	362.7	364.6	366.4
110°	380.3	384.6	388.9	392.0	393.9	395.8	397.7	399.5



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CATALOG NUMBER: S124DIW-S575D770U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	413.5	417.3	421.1	424.0	426.0	428.0	430.0	432.0
115°	463.5	467.6	471.8	474.4	475.6	476.9	478.1	479.3
117.5°	513.4	517.0	520.5	522.9	524.2	525.6	526.9	528.2
120°	544.1	547.9	551.7	554.1	555.1	556.2	557.3	558.3
122.5°	574.6	578.2	581.9	584.2	585.1	586.0	586.9	587.8
125°	617.2	621.0	624.8	627.3	628.5	629.7	630.9	632.1
127.5°	658.8	661.9	664.9	666.9	667.9	669.0	670.0	671.1
130°	684.2	687.4	690.7	692.9	693.9	695.0	696.0	697.0
132.5°	709.3	712.4	715.6	717.6	718.5	719.4	720.3	721.2
135°	742.9	746.0	749.1	751.3	752.7	754.0	755.4	756.8
137.5°	775.7	778.6	781.5	783.3	784.1	784.8	785.6	786.3
140°	796.1	798.8	801.6	803.5	804.5	805.5	806.6	807.6
142.5°	815.4	817.7	820.1	821.6	822.4	823.1	823.9	824.7
145°	843.4	844.6	845.8	846.9	848.0	849.0	850.0	851.0
147.5°	868.1	868.4	868.7	869.2	869.9	870.6	871.3	872.0
150°	884.8	884.8	884.8	884.9	885.1	885.2	885.4	885.5
152.5°	899.6	899.8	900.1	900.2	900.1	900.0	899.9	899.8
155°	919.5	920.2	920.8	920.9	920.4	919.9	919.4	919.0
157.5°	936.7	937.6	938.4	938.4	937.6	936.7	935.8	935.0
160°	947.7	948.6	949.6	949.6	948.6	947.7	946.7	945.7
162.5°	956.6	957.5	958.5	958.5	957.4	956.2	955.1	954.0
165°	969.1	970.4	971.7	971.7	970.2	968.7	967.2	965.7
167.5°	978.3	979.7	981.2	981.1	979.4	977.8	976.1	974.5
170°	983.9	985.3	986.6	986.4	984.8	983.1	981.5	979.8
172.5°	987.5	988.8	990.1	989.9	988.1	986.4	984.6	982.8
175°	991.7	993.2	994.7	994.4	992.4	990.5	988.5	986.5
177.5°	993.4	994.4	995.5	995.2	993.6	992.0	990.5	988.9
180°	992.4	992.4	992.4	992.4	992.4	992.4	992.4	992.4

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