

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: P332557

Luminaire Tested: **S124DIP-S575D810U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332557
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D810U835-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5176.3 lumens
Efficiency: N/A
Efficacy: 134.8 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

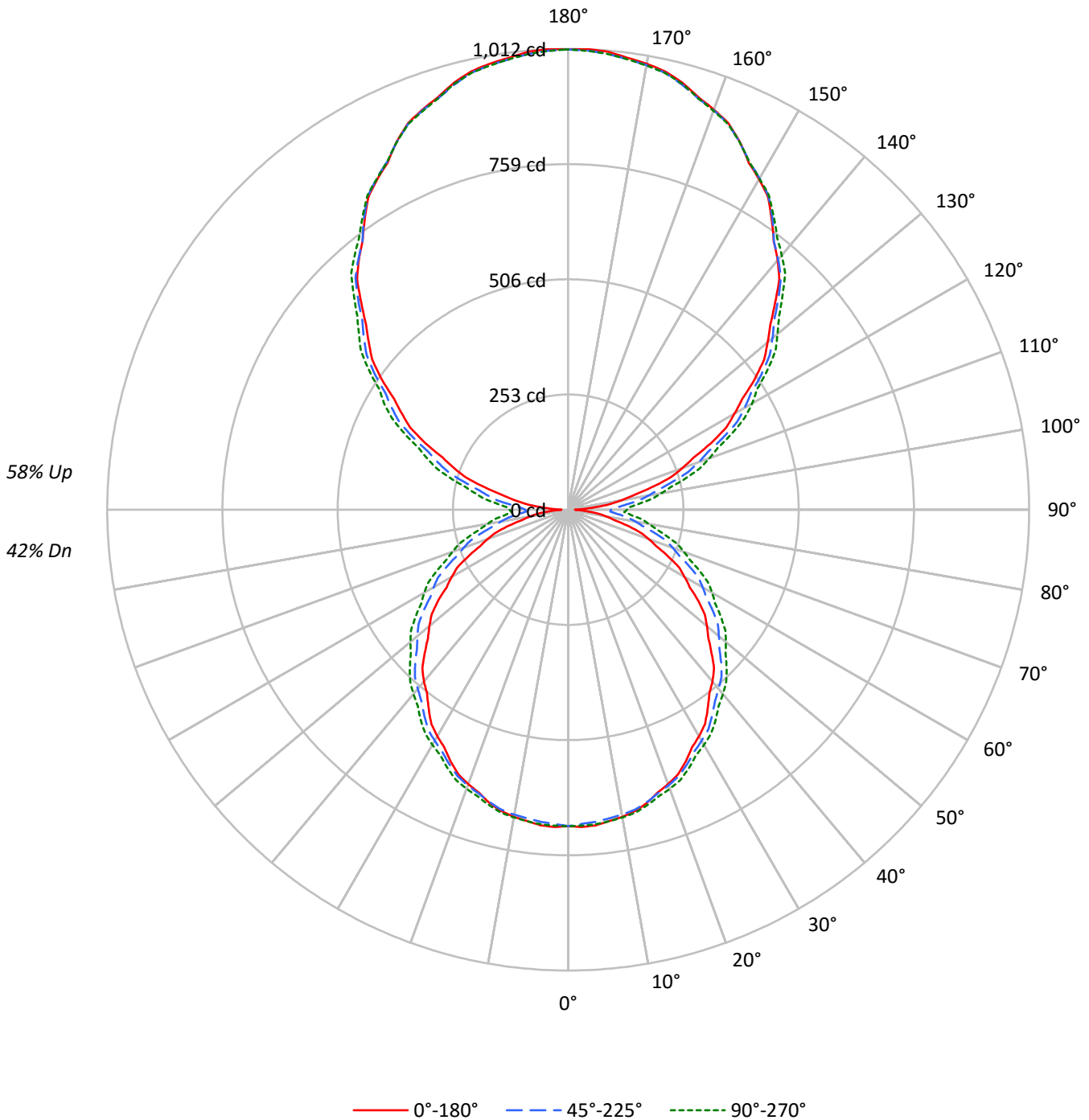
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	95	91	86	83	87	83	79	76	68	65	63	54	53	51	42	41	40	34				
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	33	28				
3	78	69	61	55	71	63	56	51	52	47	43	41	38	35	32	30	27	23				
4	72	61	52	46	65	55	48	43	46	40	36	37	33	30	28	26	23	19				
5	66	54	45	39	60	49	42	37	41	35	31	33	29	26	25	23	20	17				
6	60	48	40	34	55	44	37	32	37	31	27	30	25	22	23	20	18	15				
7	56	43	35	30	51	40	33	28	33	28	23	27	23	20	21	18	16	13				
8	52	39	31	26	47	36	29	24	30	25	21	24	20	17	19	16	14	11				
9	48	36	28	23	44	33	26	22	27	22	18	22	18	15	18	15	12	10				
10	45	33	25	21	41	30	24	19	25	20	17	21	17	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	1.3
10°-20°	188.5	3.6
20°-30°	285.1	5.5
30°-40°	344.9	6.7
40°-50°	364.7	7.0
50°-60°	343.2	6.6
60°-70°	284.7	5.5
70°-80°	200.0	3.9
80°-90°	116.1	2.2
90°-100°	133.8	2.6
100°-110°	247.2	4.8
110°-120°	368.6	7.1
120°-130°	460.8	8.9
130°-140°	504.6	9.7
140°-150°	489.5	9.5
150°-160°	410.3	7.9
160°-170°	273.0	5.3
170°-180°	95.6	1.8
0°-30°	539.4	10.4
0°-40°	884.4	17.1
0°-60°	1592.2	30.8
0°-90°	2193.0	42.4
90°-120°	749.6	14.5
90°-150°	2204.5	42.6
90°-180°	2983.0	57.6
0°-180°	5176.3	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	94	120	129	11
95°	57	90	127	150	158	60
105°	189	206	237	258	268	201
115°	346	353	376	392	397	341
125°	500	500	517	530	534	445
135°	642	647	652	662	665	497
145°	779	781	782	786	786	487
155°	891	891	890	893	890	410
165°	970	968	966	971	968	273
175°	1009	1006	1005	1010	1005	96
180°	1011	1011	1011	1011	1011	



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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	38.4	45.8	53.3	60.9	68.7	76.6	84.5	92.3	97.5
90°	14.8	23.6	32.5	41.3	50.1	58.9	67.8	76.6	85.4	94.2	100.3
92.5°	28.6	37.0	45.4	53.8	62.2	70.6	79.0	87.4	95.9	104.3	109.8
95°	57.0	64.3	71.6	78.8	86.1	93.9	102.2	110.5	118.8	127.1	132.3
97.5°	91.1	97.3	103.4	109.6	115.8	123.1	131.5	140.0	148.4	156.8	162.0
100°	118.0	123.2	128.4	133.6	138.8	145.5	153.8	162.1	170.4	178.8	183.8
102.5°	146.8	151.0	155.2	159.4	163.7	169.8	177.8	185.8	193.9	201.9	206.9
105°	189.2	192.8	196.4	200.1	203.7	209.1	216.1	223.2	230.3	237.4	242.3
107.5°	235.1	238.2	241.2	244.3	247.3	251.9	258.1	264.2	270.4	276.5	281.3
110°	265.8	268.5	271.3	274.1	276.9	281.2	287.1	292.9	298.8	304.7	308.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	297.7	299.9	302.1	304.3	306.5	310.4	315.8	321.3	326.8	332.2	336.0
115°	345.5	347.1	348.6	350.2	351.8	355.1	360.3	365.5	370.7	375.9	379.5
117.5°	391.3	392.4	393.5	394.6	395.6	398.6	403.5	408.4	413.4	418.3	421.3
120°	421.4	422.6	423.8	425.0	426.2	429.1	433.6	438.1	442.6	447.0	449.6
122.5°	453.3	453.6	454.0	454.4	454.8	457.2	461.7	466.2	470.7	475.2	478.1
125°	499.5	499.4	499.2	499.0	498.9	500.8	505.0	509.1	513.3	517.4	520.4
127.5°	542.1	542.4	542.8	543.1	543.5	545.2	548.2	551.2	554.3	557.3	560.1
130°	571.5	571.8	572.2	572.5	572.9	574.4	577.2	580.0	582.7	585.5	588.3
132.5°	602.1	602.3	602.5	602.7	603.0	604.1	606.2	608.2	610.3	612.4	615.0
135°	641.8	642.9	643.9	645.0	646.0	647.1	648.3	649.6	650.8	652.0	654.4
137.5°	685.9	686.2	686.6	686.9	687.2	687.8	688.6	689.5	690.4	691.2	693.3
140°	715.3	715.5	715.7	715.9	716.0	716.2	716.4	716.5	716.7	716.9	719.0
142.5°	741.6	741.9	742.2	742.5	742.8	742.9	742.6	742.4	742.2	741.9	743.9
145°	778.7	779.2	779.7	780.2	780.7	781.1	781.3	781.4	781.6	781.8	782.7
147.5°	815.6	816.2	816.9	817.5	818.2	818.5	818.3	818.2	818.0	817.9	817.9
150°	838.1	838.6	839.1	839.6	840.2	840.4	840.4	840.4	840.4	840.4	840.4
152.5°	858.7	859.1	859.5	859.9	860.2	860.5	860.6	860.8	860.9	861.1	861.5
155°	891.2	891.2	891.2	891.2	891.2	891.1	891.0	890.8	890.6	890.5	891.1
157.5°	918.8	918.4	918.1	917.8	917.5	917.3	917.3	917.3	917.2	917.2	917.7
160°	935.0	934.8	934.7	934.5	934.3	934.1	934.0	933.8	933.6	933.5	934.0
162.5°	950.0	949.6	949.1	948.7	948.2	947.9	947.7	947.6	947.4	947.2	948.2
165°	970.2	969.7	969.2	968.6	968.1	967.7	967.3	967.0	966.6	966.3	967.3
167.5°	985.7	984.9	984.2	983.5	982.8	982.4	982.4	982.5	982.5	982.5	983.6
170°	994.4	993.6	992.7	991.8	991.0	990.6	990.8	991.0	991.1	991.3	992.3
172.5°	1000.7	1000.0	999.2	998.5	997.8	997.4	997.5	997.5	997.5	997.6	998.7
175°	1009.3	1008.4	1007.5	1006.7	1005.8	1005.3	1005.1	1004.9	1004.8	1004.6	1005.8
177.5°	1012.1	1011.4	1010.7	1010.0	1009.3	1009.0	1009.0	1009.0	1009.0	1009.0	1009.9
180°	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8



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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°	102.8	108.0	113.2	116.6	118.2	119.8	121.4	123.0
90°	106.4	112.4	118.5	122.4	124.1	125.8	127.6	129.3
92.5°	115.3	120.8	126.3	129.8	131.4	133.0	134.6	136.2
95°	137.5	142.7	147.9	151.2	152.8	154.4	155.9	157.5
97.5°	167.2	172.3	177.5	180.8	182.3	183.8	185.3	186.7
100°	188.8	193.8	198.8	201.9	203.1	204.4	205.6	206.8
102.5°	211.9	217.0	222.0	225.2	226.7	228.2	229.7	231.2
105°	247.1	252.0	256.8	260.2	262.1	264.0	265.9	267.8
107.5°	286.0	290.8	295.5	298.5	299.7	300.9	302.1	303.3
110°	311.9	315.6	319.2	322.0	323.9	325.8	327.7	329.6



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CATALOG NUMBER: S124DIP-S575D810U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	339.8	343.5	347.3	349.9	351.4	352.9	354.4	355.9
115°	383.1	386.8	390.4	392.7	393.8	394.8	395.8	396.9
117.5°	424.3	427.3	430.3	432.3	433.3	434.4	435.4	436.5
120°	452.2	454.8	457.4	459.6	461.3	463.0	464.8	466.5
122.5°	480.9	483.8	486.7	488.4	489.0	489.7	490.3	490.9
125°	523.3	526.3	529.2	531.0	531.7	532.4	533.1	533.8
127.5°	562.9	565.6	568.4	570.2	571.1	572.0	572.9	573.8
130°	591.0	593.8	596.6	598.1	598.4	598.8	599.1	599.5
132.5°	617.7	620.3	622.9	624.6	625.4	626.1	626.9	627.6
135°	656.8	659.2	661.7	663.1	663.6	664.2	664.7	665.2
137.5°	695.4	697.5	699.5	701.1	702.0	703.0	704.0	704.9
140°	721.0	723.1	725.2	726.6	727.3	728.0	728.6	729.3
142.5°	745.8	747.7	749.7	751.0	751.7	752.4	753.0	753.7
145°	783.5	784.4	785.2	785.8	785.9	786.1	786.3	786.4
147.5°	817.9	817.9	817.9	818.1	818.5	818.9	819.2	819.6
150°	840.4	840.4	840.4	840.3	840.2	840.0	839.8	839.6
152.5°	861.9	862.3	862.7	862.7	862.3	861.8	861.4	860.9
155°	891.8	892.5	893.2	893.2	892.5	891.8	891.1	890.5
157.5°	918.2	918.8	919.3	919.2	918.7	918.1	917.5	916.9
160°	934.5	935.0	935.5	935.4	934.5	933.6	932.8	931.9
162.5°	949.1	950.0	951.0	951.0	950.1	949.3	948.4	947.5
165°	968.4	969.4	970.5	970.6	969.9	969.2	968.5	967.9
167.5°	984.6	985.7	986.7	986.7	985.6	984.5	983.5	982.4
170°	993.4	994.4	995.5	995.4	994.2	993.0	991.7	990.5
172.5°	999.9	1001.1	1002.3	1002.3	1001.1	999.8	998.6	997.4
175°	1007.0	1008.2	1009.5	1009.5	1008.2	1007.0	1005.8	1004.6
177.5°	1010.9	1011.9	1012.9	1012.8	1011.7	1010.6	1009.5	1008.3
180°	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8	1010.8

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