

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: P332557-830

Luminaire Tested: **S124DIP-S575D810U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332557-830
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-S575D810U830-4F0-1E-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: 4878.9 lumens
Efficiency: N/A
Efficacy: 127.1 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

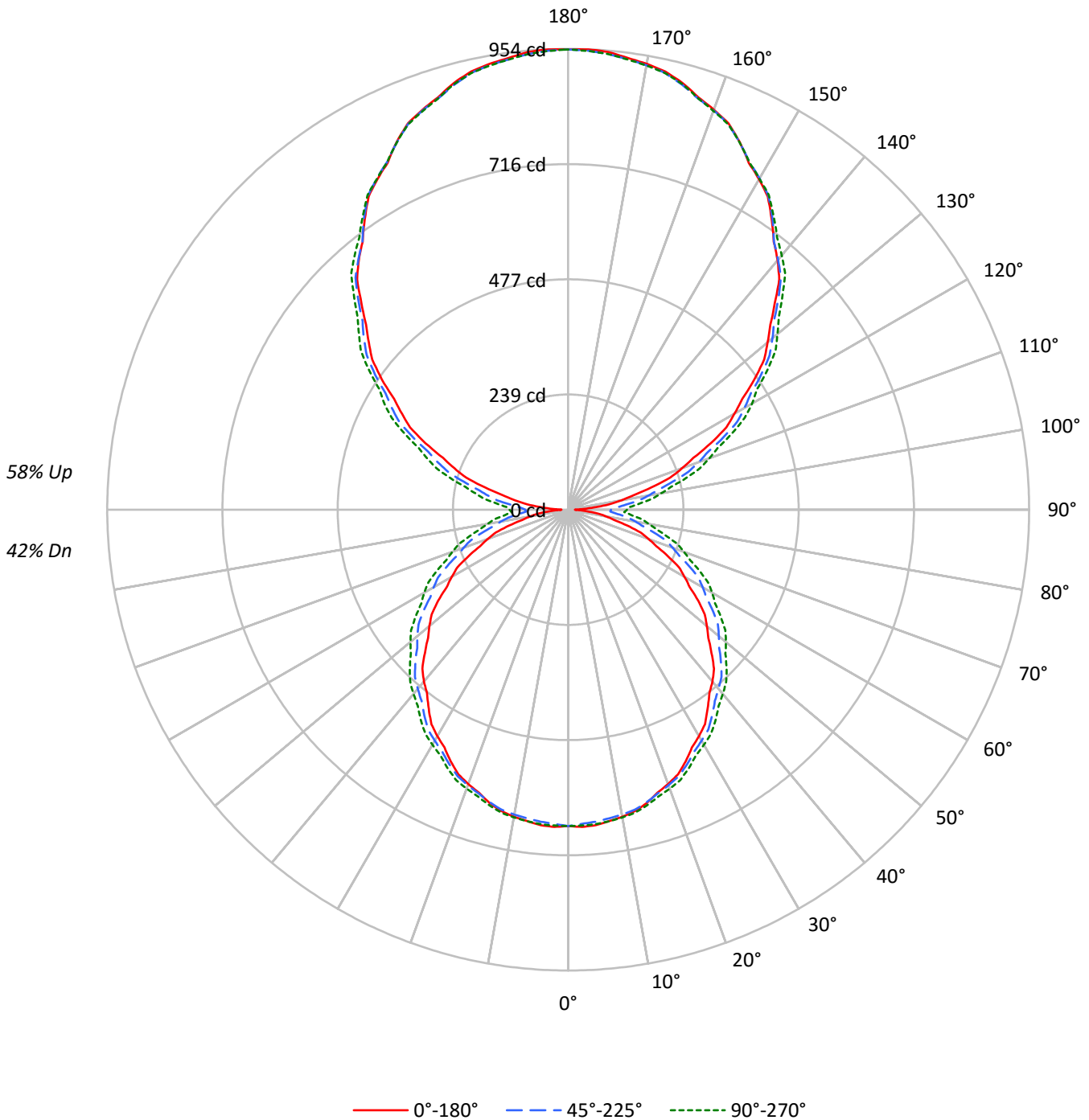
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	5288	5288	5288
5°	5304	5168	5182
10°	5272	5083	5079
15°	5225	4985	4958
20°	5153	4877	4840
25°	5073	4756	4710
30°	4986	4636	4576
35°	4887	4512	4460
40°	4809	4395	4338
45°	4692	4287	4233
50°	4593	4163	4123
55°	4491	4045	3993
60°	4332	3894	3876
65°	4156	3735	3731
70°	3945	3551	3561
75°	3649	3349	3408
80°	3322	3156	3259
85°	2903	2980	3172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	1.3
10°-20°	177.7	3.6
20°-30°	268.7	5.5
30°-40°	325.1	6.7
40°-50°	343.7	7.0
50°-60°	323.5	6.6
60°-70°	268.4	5.5
70°-80°	188.5	3.9
80°-90°	109.4	2.2
90°-100°	126.1	2.6
100°-110°	233.0	4.8
110°-120°	347.4	7.1
120°-130°	434.4	8.9
130°-140°	475.6	9.7
140°-150°	461.3	9.5
150°-160°	386.7	7.9
160°-170°	257.3	5.3
170°-180°	90.1	1.8
0°-30°	508.4	10.4
0°-40°	833.5	17.1
0°-60°	1500.7	30.8
0°-90°	2067.0	42.4
90°-120°	706.5	14.5
90°-150°	2077.8	42.6
90°-180°	2812.0	57.6
0°-180°	4878.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	656	653	648	654	654	62
15°	629	629	627	633	633	177
25°	575	579	582	589	590	265
35°	503	512	519	529	532	315
45°	420	433	447	459	464	324
55°	329	344	366	380	385	293
65°	227	251	276	293	300	225
75°	126	153	184	204	211	134
85°	39	70	103	124	132	41
90°	14	51	89	114	122	11
95°	54	85	120	141	148	57
105°	178	195	224	244	252	190
115°	326	333	354	369	374	321
125°	471	471	488	500	503	420
135°	605	609	614	624	627	468
145°	734	736	737	740	741	459
155°	840	840	839	842	839	386
165°	914	912	911	915	912	258
175°	951	948	947	952	947	90
180°	953	953	953	953	953	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	657.3	657.0	656.6	656.1	655.7	655.1	654.0	653.0	651.9	650.8	651.8
5°	655.7	655.3	654.7	654.2	653.7	652.9	651.8	650.6	649.5	648.4	649.7
7.5°	650.2	649.8	649.5	649.2	648.9	648.4	647.4	646.5	645.5	644.5	646.0
10°	645.5	645.3	645.1	645.0	644.8	644.3	643.5	642.6	641.9	641.0	642.5
12.5°	638.9	638.9	638.9	638.9	638.9	638.6	638.0	637.4	636.9	636.3	637.6
15°	628.6	628.8	628.9	629.1	629.2	629.1	628.6	628.1	627.5	627.1	628.6
17.5°	614.3	614.8	615.3	615.8	616.3	616.5	616.4	616.3	616.2	616.1	617.6
20°	604.4	604.8	605.3	605.9	606.3	606.6	606.8	607.0	607.1	607.3	608.9
22.5°	593.2	593.8	594.5	595.0	595.7	596.2	596.4	596.7	597.0	597.3	599.0
25°	575.0	576.0	577.0	578.0	578.9	579.7	580.1	580.6	581.2	581.6	583.4
27.5°	554.8	556.2	557.6	559.1	560.5	561.6	562.3	563.1	563.8	564.6	566.3
30°	541.3	542.6	543.8	545.2	546.5	547.7	548.8	550.0	551.1	552.3	554.1
32.5°	526.6	528.2	529.7	531.3	532.9	534.3	535.6	536.9	538.1	539.4	541.4
35°	503.1	505.1	507.1	509.0	511.0	512.7	514.3	516.0	517.6	519.2	521.6
37.5°	479.6	481.7	484.0	486.3	488.5	490.7	492.7	494.7	496.7	498.7	501.1
40°	464.3	466.4	468.5	470.6	472.8	474.9	477.2	479.5	481.8	484.1	486.5
42.5°	446.7	449.0	451.4	453.8	456.2	458.7	461.4	464.0	466.7	469.4	472.1
45°	419.5	422.6	425.7	428.9	431.9	435.0	438.1	441.2	444.3	447.4	450.2
47.5°	393.6	396.7	399.9	403.1	406.3	409.7	413.3	416.9	420.5	424.0	427.0
50°	374.8	378.3	381.9	385.6	389.2	392.8	396.3	399.9	403.5	407.1	410.3
52.5°	356.0	359.6	363.2	366.7	370.3	374.2	378.3	382.4	386.5	390.6	393.9
55°	328.6	332.0	335.5	338.8	342.2	346.4	351.3	356.2	361.1	366.0	369.3
57.5°	297.9	302.2	306.4	310.7	314.9	319.4	324.2	329.1	334.0	338.8	342.7
60°	278.0	282.2	286.4	290.7	294.9	299.7	305.1	310.5	315.8	321.2	325.0
62.5°	258.6	263.3	267.9	272.5	277.1	282.1	287.5	292.8	298.3	303.7	307.4
65°	227.3	232.6	237.8	243.0	248.3	253.6	259.1	264.7	270.2	275.8	279.8
67.5°	197.3	202.8	208.4	214.0	219.4	225.2	231.1	237.0	243.0	248.9	253.1
70°	176.7	182.3	187.8	193.4	199.0	204.8	210.9	217.2	223.4	229.6	233.9
72.5°	156.8	162.5	168.1	173.8	179.5	185.6	192.2	198.8	205.4	212.0	216.2
75°	126.1	132.1	138.2	144.2	150.2	156.7	163.5	170.4	177.3	184.1	188.7
77.5°	97.6	104.0	110.4	116.7	123.1	129.9	137.0	144.2	151.4	158.5	163.2
80°	79.9	86.4	93.0	99.5	106.0	112.8	120.1	127.2	134.4	141.6	146.5
82.5°	62.3	69.1	75.9	82.7	89.4	96.4	103.6	110.7	117.9	125.2	130.2
85°	38.8	45.7	52.6	59.4	66.3	73.3	80.7	88.0	95.4	102.6	107.5
87.5°	22.1	29.1	36.2	43.2	50.2	57.4	64.8	72.2	79.6	87.0	91.9
90°	13.9	22.2	30.6	38.9	47.2	55.5	63.9	72.2	80.5	88.8	94.5
92.5°	27.0	34.9	42.8	50.7	58.6	66.5	74.5	82.4	90.4	98.3	103.5
95°	53.7	60.6	67.5	74.3	81.2	88.5	96.3	104.2	112.0	119.8	124.7
97.5°	85.9	91.7	97.5	103.3	109.1	116.0	123.9	132.0	139.9	147.8	152.7
100°	111.2	116.1	121.0	125.9	130.8	137.1	145.0	152.8	160.6	168.5	173.2
102.5°	138.4	142.3	146.3	150.2	154.3	160.0	167.6	175.1	182.8	190.3	195.0
105°	178.3	181.7	185.1	188.6	192.0	197.1	203.7	210.4	217.1	223.8	228.4
107.5°	221.6	224.5	227.3	230.3	233.1	237.4	243.3	249.0	254.9	260.6	265.1
110°	250.5	253.1	255.7	258.4	261.0	265.0	270.6	276.1	281.6	287.2	290.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	280.6	282.7	284.7	286.8	288.9	292.6	297.7	302.8	308.0	313.1	316.7
115°	325.6	327.2	328.6	330.1	331.6	334.7	339.6	344.5	349.4	354.3	357.7
117.5°	368.8	369.9	370.9	371.9	372.9	375.7	380.3	384.9	389.6	394.3	397.1
120°	397.2	398.3	399.4	400.6	401.7	404.4	408.7	412.9	417.2	421.3	423.8
122.5°	427.3	427.5	427.9	428.3	428.7	430.9	435.2	439.4	443.7	447.9	450.6
125°	470.8	470.7	470.5	470.3	470.2	472.0	476.0	479.8	483.8	487.7	490.5
127.5°	511.0	511.2	511.6	511.9	512.3	513.9	516.7	519.5	522.5	525.3	527.9
130°	538.7	538.9	539.3	539.6	540.0	541.4	544.0	546.7	549.2	551.9	554.5
132.5°	567.5	567.7	567.9	568.1	568.4	569.4	571.4	573.3	575.2	577.2	579.7
135°	604.9	606.0	606.9	607.9	608.9	609.9	611.1	612.3	613.4	614.5	616.8
137.5°	646.5	646.8	647.1	647.4	647.7	648.3	649.0	649.9	650.7	651.5	653.5
140°	674.2	674.4	674.6	674.8	674.9	675.0	675.2	675.3	675.5	675.7	677.7
142.5°	699.0	699.3	699.6	699.8	700.1	700.2	699.9	699.7	699.6	699.3	701.2
145°	734.0	734.4	734.9	735.4	735.8	736.2	736.4	736.5	736.7	736.9	737.7
147.5°	768.7	769.3	770.0	770.5	771.2	771.5	771.3	771.2	771.0	770.9	770.9
150°	789.9	790.4	790.9	791.4	791.9	792.1	792.1	792.1	792.1	792.1	792.1
152.5°	809.4	809.7	810.1	810.5	810.8	811.1	811.2	811.3	811.4	811.6	812.0
155°	840.0	840.0	840.0	840.0	840.0	839.9	839.8	839.6	839.4	839.3	839.9
157.5°	866.0	865.6	865.3	865.1	864.8	864.6	864.6	864.6	864.5	864.5	865.0
160°	881.3	881.1	881.0	880.8	880.6	880.4	880.3	880.1	880.0	879.9	880.3
162.5°	895.4	895.0	894.6	894.2	893.7	893.4	893.2	893.2	893.0	892.8	893.7
165°	914.5	914.0	913.5	912.9	912.5	912.1	911.7	911.4	911.1	910.8	911.7
167.5°	929.1	928.3	927.7	927.0	926.3	926.0	926.0	926.0	926.0	926.0	927.1
170°	937.3	936.5	935.7	934.8	934.1	933.7	933.9	934.1	934.2	934.3	935.3
172.5°	943.2	942.5	941.8	941.1	940.5	940.1	940.2	940.2	940.2	940.3	941.3
175°	951.3	950.5	949.6	948.9	948.0	947.5	947.3	947.2	947.1	946.9	948.0
177.5°	953.9	953.3	952.6	952.0	951.3	951.0	951.0	951.0	951.0	951.0	951.9
180°	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	652.7	653.6	654.5	654.9	654.8	654.6	654.5	654.4
5°	651.0	652.2	653.6	654.1	654.0	653.8	653.7	653.5
7.5°	647.5	648.9	650.4	651.1	650.9	650.7	650.5	650.4
10°	643.9	645.5	646.9	647.5	647.4	647.2	647.1	646.9
12.5°	639.0	640.4	641.7	642.3	642.3	642.2	642.2	642.2
15°	630.0	631.5	632.9	633.6	633.5	633.3	633.1	632.9
17.5°	619.1	620.6	622.1	622.7	622.6	622.5	622.4	622.3
20°	610.6	612.2	613.8	614.6	614.6	614.6	614.6	614.6
22.5°	600.6	602.2	603.8	604.8	605.0	605.3	605.6	605.9
25°	585.2	587.0	588.8	589.7	589.9	590.1	590.2	590.4
27.5°	568.0	569.6	571.3	572.2	572.4	572.6	572.8	573.0
30°	555.9	557.7	559.5	560.5	560.8	561.2	561.5	561.8
32.5°	543.5	545.5	547.6	548.7	549.1	549.4	549.8	550.1
35°	523.9	526.1	528.4	529.8	530.3	530.7	531.2	531.8
37.5°	503.4	505.7	508.0	509.4	509.9	510.5	511.0	511.5
40°	489.0	491.4	493.9	495.4	496.1	496.7	497.4	498.0
42.5°	474.9	477.5	480.2	481.8	482.4	482.9	483.4	483.9
45°	453.0	455.7	458.5	460.2	461.1	461.9	462.7	463.5
47.5°	429.8	432.7	435.5	437.4	438.5	439.4	440.5	441.4
50°	413.6	416.9	420.1	422.3	423.2	424.1	425.2	426.1
52.5°	397.2	400.4	403.7	405.8	406.8	407.7	408.7	409.7
55°	372.5	375.8	379.0	381.2	382.1	383.1	384.1	385.0
57.5°	346.6	350.5	354.4	356.8	357.7	358.5	359.5	360.4
60°	328.8	332.5	336.2	338.7	340.1	341.4	342.7	344.0
62.5°	311.1	314.9	318.7	321.1	322.4	323.8	325.1	326.4
65°	283.9	288.0	292.1	294.7	296.1	297.4	298.7	300.0
67.5°	257.2	261.4	265.5	268.2	269.5	270.7	272.0	273.2
70°	238.4	242.8	247.1	250.0	251.1	252.2	253.4	254.5
72.5°	220.5	224.8	229.0	231.8	233.1	234.3	235.6	236.9
75°	193.2	197.7	202.4	205.4	206.8	208.3	209.8	211.2
77.5°	167.9	172.5	177.1	180.2	181.7	183.3	184.8	186.4
80°	151.4	156.2	161.1	164.2	165.5	166.8	168.1	169.5
82.5°	135.2	140.2	145.2	148.5	149.9	151.3	152.7	154.2
85°	112.4	117.3	122.2	125.5	127.1	128.8	130.4	132.1
87.5°	96.9	101.8	106.7	109.9	111.4	112.9	114.4	115.9
90°	100.3	105.9	111.7	115.4	117.0	118.6	120.3	121.9
92.5°	108.7	113.9	119.0	122.3	123.9	125.4	126.9	128.4
95°	129.6	134.5	139.4	142.5	144.0	145.5	146.9	148.5
97.5°	157.6	162.4	167.3	170.4	171.8	173.2	174.7	176.0
100°	178.0	182.7	187.4	190.3	191.4	192.7	193.8	194.9
102.5°	199.7	204.5	209.2	212.3	213.7	215.1	216.5	217.9
105°	232.9	237.5	242.0	245.2	247.0	248.8	250.6	252.4
107.5°	269.6	274.1	278.5	281.3	282.5	283.6	284.7	285.9
110°	294.0	297.5	300.9	303.5	305.3	307.1	308.9	310.7



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CATALOG NUMBER: S124DIP-S575D810U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	320.3	323.8	327.3	329.8	331.2	332.6	334.0	335.5
115°	361.1	364.6	368.0	370.1	371.2	372.1	373.1	374.1
117.5°	399.9	402.7	405.6	407.5	408.4	409.4	410.4	411.4
120°	426.2	428.7	431.1	433.2	434.8	436.4	438.1	439.7
122.5°	453.3	456.0	458.7	460.3	460.9	461.6	462.1	462.7
125°	493.2	496.1	498.8	500.5	501.1	501.8	502.5	503.1
127.5°	530.6	533.1	535.7	537.4	538.3	539.1	540.0	540.8
130°	557.0	559.7	562.3	563.7	564.0	564.4	564.7	565.1
132.5°	582.2	584.7	587.1	588.7	589.5	590.1	590.9	591.5
135°	619.1	621.3	623.7	625.0	625.5	626.0	626.5	627.0
137.5°	655.4	657.4	659.3	660.8	661.7	662.6	663.5	664.4
140°	679.6	681.6	683.5	684.9	685.5	686.2	686.7	687.4
142.5°	702.9	704.7	706.6	707.8	708.5	709.2	709.7	710.4
145°	738.5	739.3	740.1	740.6	740.7	740.9	741.1	741.2
147.5°	770.9	770.9	770.9	771.1	771.5	771.8	772.1	772.5
150°	792.1	792.1	792.1	792.0	791.9	791.7	791.5	791.4
152.5°	812.4	812.8	813.1	813.1	812.8	812.3	811.9	811.4
155°	840.6	841.2	841.9	841.9	841.2	840.6	839.9	839.3
157.5°	865.4	866.0	866.5	866.4	865.9	865.3	864.8	864.2
160°	880.8	881.3	881.7	881.7	880.8	880.0	879.2	878.4
162.5°	894.6	895.4	896.4	896.4	895.5	894.8	893.9	893.1
165°	912.8	913.7	914.7	914.8	914.2	913.5	912.9	912.3
167.5°	928.0	929.1	930.0	930.0	929.0	927.9	927.0	926.0
170°	936.3	937.3	938.3	938.2	937.1	935.9	934.7	933.6
172.5°	942.4	943.6	944.7	944.7	943.6	942.4	941.2	940.1
175°	949.1	950.3	951.5	951.5	950.3	949.1	948.0	946.9
177.5°	952.8	953.8	954.7	954.6	953.6	952.5	951.5	950.4
180°	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7

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