

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: P331387-930

Luminaire Tested: **S122DIP-S865D530U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331387-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIP-S865D530U930-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 865 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 530 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4572.5 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

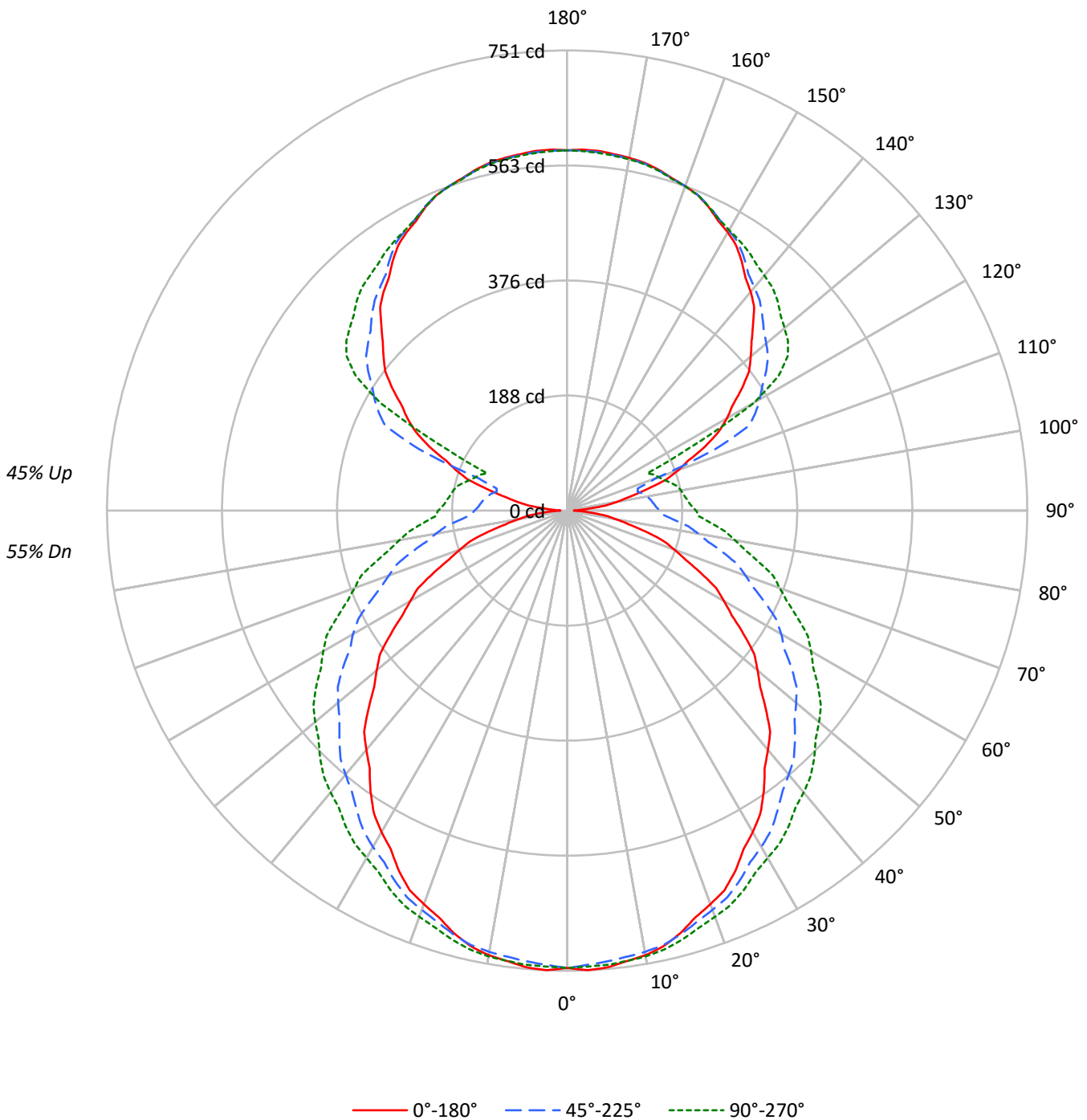
Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	97	92	88	84	90	86	82	78	73	70	67	62	60	58	51	50	48	43
2	88	80	73	67	81	74	68	63	63	59	55	53	50	47	44	42	39	35
3	80	69	61	55	74	65	57	52	55	50	45	47	42	39	39	35	33	29
4	73	61	53	46	67	57	49	43	49	43	38	41	37	33	34	31	28	24
5	67	54	46	39	61	51	43	37	43	37	32	37	32	28	31	27	24	21
6	61	49	40	34	57	45	38	32	39	33	28	33	28	24	28	24	21	18
7	57	44	35	29	52	41	33	28	35	29	25	30	25	22	25	21	18	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	24	19	25	20	17	21	18	15	13
10	46	33	26	21	42	31	24	20	27	21	17	23	19	15	20	16	13	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12053	12053	12053
5°	12111	11602	11558
10°	12036	11258	11133
15°	11869	10896	10685
20°	11659	10507	10254
25°	11452	10132	9863
30°	11160	9747	9469
35°	10866	9375	9193
40°	10556	9059	8916
45°	10260	8774	8678
50°	9944	8519	8446
55°	9611	8242	8208
60°	9207	7957	7957
65°	8784	7620	7658
70°	8310	7260	7336
75°	7704	6907	7041
80°	6744	6545	6739
85°	5835	6234	6508



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.7	1.5
10°-20°	202.8	4.4
20°-30°	307.4	6.7
30°-40°	374.4	8.2
40°-50°	402.8	8.8
50°-60°	391.1	8.6
60°-70°	341.5	7.5
70°-80°	262.9	5.7
80°-90°	177.9	3.9
90°-100°	141.2	3.1
100°-110°	160.7	3.5
110°-120°	250.9	5.5
120°-130°	350.1	7.7
130°-140°	351.3	7.7
140°-150°	316.1	6.9
150°-160°	252.2	5.5
160°-170°	162.5	3.6
170°-180°	55.9	1.2
0°-30°	580.9	12.7
0°-40°	955.3	20.9
0°-60°	1749.2	38.3
0°-90°	2531.5	55.4
90°-120°	552.8	12.1
90°-150°	1570.3	34.3
90°-180°	2041.0	44.6
0°-180°	4572.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	746	746	746	746	746	
5°	749	745	739	745	744	71
15°	714	716	716	725	725	201
25°	649	657	666	679	683	298
35°	559	578	598	621	630	349
45°	459	488	526	558	570	354
55°	352	392	447	484	500	314
65°	240	294	357	400	415	239
75°	133	194	263	308	324	141
85°	39	106	175	219	236	42
90°	11	79	151	195	210	9
95°	36	75	141	182	197	41
105°	135	173	119	160	175	144
115°	249	270	327	171	144	245
125°	348	356	396	427	440	311
135°	429	436	450	476	485	332
145°	496	497	503	512	516	311
155°	547	543	548	550	547	252
165°	576	574	575	578	575	163
175°	589	586	587	590	586	56
180°	588	588	588	588	588	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5
2.5°	750.8	750.2	749.7	749.1	748.5	747.5	746.2	744.9	743.5	742.2	743.1
5°	748.6	748.0	747.2	746.5	745.8	744.7	743.2	741.8	740.4	738.9	740.4
7.5°	741.9	741.4	740.9	740.5	740.0	739.2	738.1	737.0	735.9	734.8	736.5
10°	736.8	736.3	735.8	735.3	734.8	734.3	733.5	732.8	732.1	731.3	733.3
12.5°	728.1	728.2	728.3	728.4	728.5	728.2	727.7	727.2	726.7	726.1	728.1
15°	714.0	714.5	715.0	715.5	715.9	716.2	716.2	716.2	716.2	716.2	718.4
17.5°	695.9	696.8	697.9	698.9	699.9	700.7	701.6	702.3	703.1	703.8	706.1
20°	683.7	684.9	686.2	687.4	688.5	689.7	690.6	691.5	692.5	693.5	696.1
22.5°	670.7	672.1	673.5	674.9	676.3	677.7	679.1	680.4	681.8	683.1	685.7
25°	649.1	650.8	652.5	654.2	655.8	657.8	659.9	662.1	664.2	666.4	669.3
27.5°	623.1	625.9	628.6	631.4	634.1	636.7	639.3	641.9	644.4	646.9	650.6
30°	605.8	608.9	612.1	615.2	618.3	621.5	624.6	627.7	630.9	634.0	637.8
32.5°	586.8	590.3	593.8	597.4	600.9	604.5	608.1	611.9	615.6	619.2	623.7
35°	559.3	563.4	567.5	571.6	575.7	580.0	584.6	589.1	593.7	598.3	603.6
37.5°	529.5	534.2	538.9	543.6	548.3	553.6	559.5	565.5	571.4	577.3	583.2
40°	509.6	514.9	520.2	525.5	530.7	536.6	543.1	549.6	556.1	562.6	568.8
42.5°	490.5	495.8	501.1	506.4	511.7	518.0	525.5	533.0	540.4	547.9	554.6
45°	458.7	465.2	471.7	478.2	484.7	492.1	500.5	509.0	517.4	525.8	533.2
47.5°	427.3	434.4	441.5	448.6	455.6	464.1	473.9	483.8	493.7	503.5	511.3
50°	405.7	413.1	420.6	428.0	435.5	444.7	455.4	466.3	477.1	488.0	496.1
52.5°	384.9	392.7	400.6	408.5	416.3	425.9	437.3	448.7	460.1	471.5	479.8
55°	351.6	360.3	368.9	377.6	386.2	396.8	409.3	421.8	434.3	446.8	455.4
57.5°	318.7	328.5	338.3	348.0	357.8	369.0	381.7	394.5	407.2	420.0	429.3
60°	295.4	305.7	316.0	326.4	336.7	348.7	362.4	376.1	389.8	403.6	412.7
62.5°	274.6	285.3	296.0	306.7	317.5	329.7	343.4	357.1	370.8	384.5	394.2
65°	240.2	251.9	263.7	275.5	287.3	300.3	314.5	328.6	342.8	357.0	366.9
67.5°	208.6	220.9	233.2	245.5	257.8	271.3	285.8	300.3	314.8	329.3	339.2
70°	186.1	198.6	211.1	223.6	236.1	249.8	264.7	279.6	294.5	309.4	319.8
72.5°	165.3	178.2	191.1	204.0	216.9	230.8	246.0	261.1	276.1	291.2	301.4
75°	133.1	146.5	160.0	173.5	186.9	201.4	216.7	232.1	247.5	262.9	273.2
77.5°	101.9	116.0	130.1	144.1	158.2	173.1	188.7	204.4	220.0	235.6	245.9
80°	81.1	95.8	110.5	125.1	139.8	154.9	170.6	186.2	201.8	217.4	227.6
82.5°	63.8	78.3	92.8	107.2	121.7	136.9	152.7	168.5	184.3	200.2	210.3
85°	39.0	53.9	68.7	83.6	98.6	113.7	129.1	144.5	159.9	175.3	185.4
87.5°	21.3	35.8	50.4	64.9	79.4	94.5	110.0	125.6	141.0	156.6	166.6
90°	11.3	26.3	41.2	56.2	71.2	86.7	102.9	119.0	135.2	151.3	161.4
92.5°	18.5	31.5	44.4	57.2	70.1	84.1	99.3	114.5	129.7	144.9	154.6
95°	36.3	44.5	52.7	60.8	69.1	80.6	95.7	110.8	125.9	141.0	150.6
97.5°	62.5	63.8	65.0	66.2	67.5	75.8	91.2	106.6	122.0	137.3	146.6
100°	82.9	78.8	74.8	70.7	66.6	72.2	87.2	102.3	117.4	132.4	142.1
102.5°	104.5	109.9	115.3	120.7	126.0	128.5	128.2	127.8	127.4	127.0	136.7
105°	134.8	144.6	154.3	164.2	174.0	172.3	158.9	145.6	132.3	119.0	128.4
107.5°	170.6	178.4	186.3	194.1	202.0	196.4	177.5	158.5	139.5	120.5	127.5
110°	192.8	199.6	206.4	213.2	220.0	215.6	200.1	184.5	169.0	153.4	151.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	214.6	220.4	226.2	232.0	237.8	242.9	247.4	251.8	256.2	260.7	233.9
115°	249.0	253.2	257.5	261.7	266.0	274.7	287.9	301.1	314.2	327.4	290.9
117.5°	278.6	282.2	285.7	289.2	292.7	300.3	311.9	323.6	335.2	346.8	343.3
120°	301.1	303.5	305.8	308.2	310.6	317.5	328.7	340.1	351.4	362.7	370.6
122.5°	320.2	322.0	323.9	325.8	327.7	334.0	345.0	355.8	366.7	377.6	384.8
125°	348.1	349.3	350.5	351.8	353.0	358.3	367.9	377.3	386.9	396.3	403.5
127.5°	374.4	375.5	376.6	377.7	378.9	383.2	390.8	398.3	405.9	413.4	420.3
130°	391.0	392.3	393.6	394.8	396.2	399.8	405.9	412.0	418.1	424.2	431.0
132.5°	408.1	409.1	410.2	411.2	412.2	415.2	420.2	425.1	430.1	435.0	441.5
135°	429.1	430.6	432.1	433.7	435.1	437.6	440.8	444.1	447.4	450.5	456.6
137.5°	451.5	452.5	453.6	454.5	455.5	457.1	459.1	461.1	463.1	465.1	470.5
140°	466.1	466.7	467.2	467.7	468.2	469.2	470.8	472.2	473.8	475.3	480.0
142.5°	478.4	478.8	479.2	479.7	480.1	481.0	482.3	483.6	484.9	486.2	490.0
145°	496.5	496.4	496.4	496.3	496.2	496.9	498.6	500.1	501.7	503.4	505.5
147.5°	513.3	512.9	512.6	512.3	511.8	512.5	514.0	515.7	517.2	518.9	519.5
150°	524.2	523.5	522.9	522.2	521.5	522.0	523.5	525.0	526.5	528.0	528.6
152.5°	533.4	532.6	531.9	531.2	530.4	530.8	532.2	533.7	535.1	536.5	537.1
155°	546.7	545.9	545.0	544.2	543.3	543.5	544.6	545.8	546.9	548.0	548.6
157.5°	557.2	556.5	555.8	555.1	554.3	554.4	555.1	556.0	556.8	557.6	558.2
160°	563.4	562.8	562.2	561.7	561.1	561.1	561.7	562.2	562.8	563.4	563.9
162.5°	568.8	568.2	567.6	567.0	566.6	566.5	567.0	567.4	567.9	568.4	569.1
165°	576.1	575.5	574.9	574.4	573.8	573.7	574.0	574.2	574.5	574.8	575.5
167.5°	581.6	581.0	580.4	579.8	579.3	579.1	579.4	579.7	579.9	580.2	580.8
170°	584.6	584.1	583.5	582.9	582.4	582.1	582.4	582.5	582.7	582.9	583.6
172.5°	586.7	586.1	585.5	585.0	584.4	584.2	584.4	584.6	584.7	585.0	585.6
175°	589.3	588.6	588.0	587.3	586.6	586.4	586.6	586.8	586.9	587.2	587.8
177.5°	589.7	589.2	588.6	588.2	587.6	587.3	587.4	587.5	587.6	587.7	588.2
180°	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5
2.5°	744.0	745.0	746.0	746.3	745.9	745.5	745.1	744.8
5°	741.8	743.2	744.7	745.3	745.0	744.8	744.5	744.3
7.5°	738.3	740.0	741.8	742.5	742.2	742.0	741.8	741.5
10°	735.2	737.1	739.1	739.9	739.6	739.4	739.2	738.9
12.5°	730.0	731.9	733.9	734.7	734.4	734.2	733.9	733.7
15°	720.5	722.7	724.9	725.8	725.5	725.3	725.0	724.9
17.5°	708.4	710.6	712.9	714.0	714.0	714.0	714.0	714.0
20°	698.8	701.4	704.0	705.4	705.4	705.4	705.4	705.4
22.5°	688.4	691.0	693.7	695.2	695.5	695.9	696.3	696.8
25°	672.2	675.1	678.0	679.8	680.4	681.2	681.9	682.7
27.5°	654.3	657.9	661.5	663.7	664.2	664.7	665.3	665.8
30°	641.6	645.5	649.4	651.7	652.3	653.1	653.8	654.5
32.5°	628.1	632.5	636.9	639.8	641.1	642.4	643.7	645.0
35°	608.9	614.2	619.5	622.9	624.6	626.3	627.9	629.7
37.5°	589.0	594.8	600.7	604.5	606.3	608.1	609.9	611.7
40°	575.0	581.3	587.6	591.7	593.9	596.1	598.3	600.5
42.5°	561.5	568.3	575.2	579.7	581.8	584.0	586.1	588.3
45°	540.7	548.1	555.6	560.5	563.0	565.3	567.8	570.1
47.5°	519.1	526.8	534.7	539.9	542.5	545.2	547.8	550.5
50°	504.3	512.4	520.7	526.0	528.6	531.3	533.9	536.6
52.5°	488.2	496.6	504.9	510.5	513.4	516.2	519.0	521.9
55°	464.1	472.8	481.4	487.3	490.4	493.6	496.7	499.8
57.5°	438.6	447.9	457.3	463.6	466.7	469.9	473.0	476.2
60°	421.8	431.0	440.1	446.3	449.7	453.1	456.4	459.8
62.5°	403.9	413.6	423.3	429.8	432.9	436.1	439.3	442.5
65°	376.7	386.6	396.5	402.9	406.0	409.2	412.3	415.4
67.5°	349.2	359.1	369.2	375.8	379.0	382.3	385.6	388.8
70°	330.1	340.4	350.7	357.3	360.3	363.1	366.1	368.9
72.5°	311.5	321.6	331.8	338.6	342.1	345.5	349.0	352.5
75°	283.6	293.9	304.3	311.0	314.1	317.2	320.3	323.5
77.5°	256.2	266.5	276.8	283.6	287.0	290.3	293.8	297.1
80°	237.7	247.8	257.9	264.6	267.9	271.3	274.7	278.0
82.5°	220.4	230.4	240.5	247.2	250.4	253.5	256.7	259.8
85°	195.4	205.5	215.6	222.4	225.8	229.1	232.4	235.9
87.5°	176.4	186.3	196.2	202.8	205.9	209.0	212.1	215.2
90°	171.5	181.6	191.7	198.3	201.3	204.4	207.5	210.5
92.5°	164.2	173.9	183.6	189.9	192.9	195.9	198.9	201.9
95°	160.2	169.8	179.4	185.6	188.4	191.2	194.0	196.8
97.5°	155.9	165.2	174.4	180.5	183.4	186.5	189.4	192.3
100°	151.7	161.4	171.0	177.3	180.1	183.0	185.8	188.7
102.5°	146.4	156.1	165.8	172.1	175.0	177.9	180.8	183.8
105°	137.9	147.3	156.8	163.1	166.1	169.1	172.1	175.1
107.5°	134.5	141.5	148.5	153.6	156.6	159.6	162.7	165.7
110°	149.9	148.1	146.4	147.0	150.0	153.0	156.0	159.1





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CATALOG NUMBER: S122DIP-S865D530U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	207.1	180.3	153.5	141.6	144.6	147.5	150.4	153.4
115°	254.3	217.8	181.2	160.8	156.6	152.5	148.3	144.1
117.5°	339.9	336.4	332.9	321.2	301.3	281.4	261.5	241.6
120°	378.5	386.3	394.2	393.1	382.9	372.8	362.7	352.6
122.5°	392.1	399.3	406.5	410.0	409.8	409.5	409.4	409.1
125°	410.6	417.8	424.9	429.7	432.2	434.6	437.1	439.5
127.5°	427.2	434.1	441.1	445.6	447.8	450.0	452.2	454.3
130°	437.8	444.6	451.4	455.8	457.5	459.4	461.2	463.1
132.5°	447.9	454.4	460.8	465.0	466.8	468.6	470.5	472.3
135°	462.5	468.6	474.6	478.4	480.1	481.8	483.6	485.3
137.5°	475.8	481.2	486.6	489.9	491.2	492.5	493.8	495.1
140°	484.7	489.4	494.1	496.9	497.9	498.9	499.9	500.8
142.5°	493.8	497.7	501.6	503.9	504.7	505.4	506.2	507.0
145°	507.5	509.6	511.8	513.1	513.9	514.6	515.4	516.1
147.5°	520.2	520.9	521.5	522.0	522.2	522.4	522.5	522.7
150°	529.1	529.7	530.3	530.4	529.9	529.4	528.9	528.5
152.5°	537.7	538.3	538.8	538.7	538.2	537.5	536.9	536.3
155°	549.2	549.8	550.3	550.2	549.4	548.7	548.0	547.1
157.5°	558.8	559.5	560.1	560.1	559.3	558.6	557.8	557.1
160°	564.4	565.0	565.6	565.6	564.9	564.3	563.5	562.9
162.5°	569.7	570.4	571.0	571.0	570.1	569.3	568.5	567.7
165°	576.2	576.8	577.5	577.5	576.8	576.2	575.5	574.8
167.5°	581.5	582.2	582.9	582.8	581.9	581.1	580.2	579.4
170°	584.2	584.9	585.5	585.5	584.6	583.8	582.9	582.0
172.5°	586.3	586.9	587.6	587.5	586.7	585.8	585.0	584.1
175°	588.5	589.1	589.8	589.7	588.7	587.7	586.9	585.9
177.5°	588.7	589.3	589.8	589.7	589.1	588.3	587.7	587.0
180°	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0

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