

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: P332576-830

Luminaire Tested: **S124DIP-S575D1205U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332576-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D1205U830-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6290.2 lumens
Efficiency: N/A
Efficacy: 127.3 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

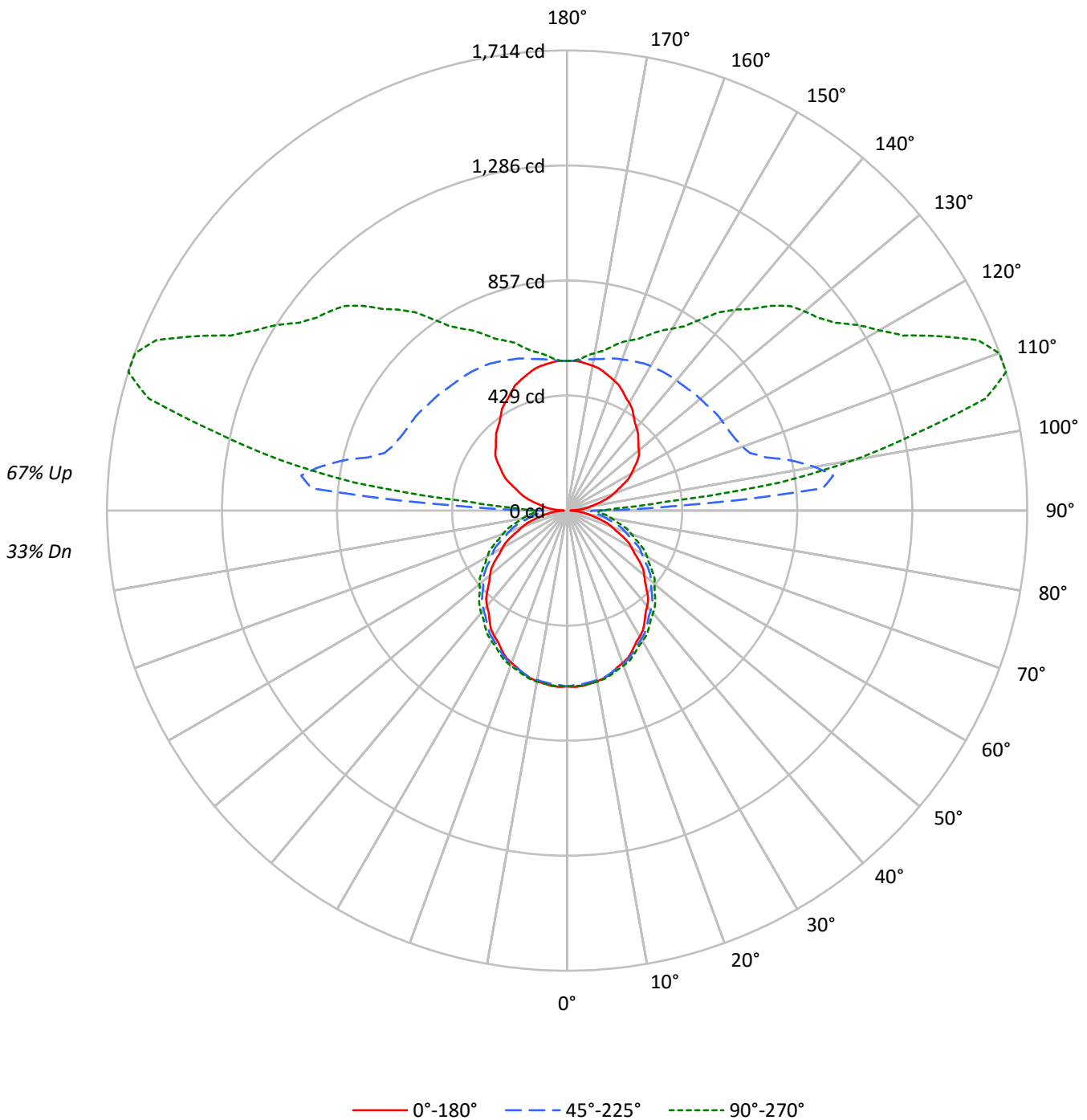
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	33
1	93	89	85	81	84	80	77	73	64	61	59	48	47	45	35	34	33	26
2	85	77	71	66	76	70	64	60	55	52	48	42	40	37	30	28	27	21
3	77	67	60	54	69	61	55	49	48	44	40	37	34	31	26	24	23	18
4	70	59	52	46	63	54	47	42	43	38	34	33	29	27	23	21	19	15
5	64	53	45	39	58	48	41	35	38	33	29	29	26	23	21	19	17	13
6	59	47	39	33	53	43	36	31	34	29	25	26	23	20	19	16	15	11
7	55	42	34	29	49	38	32	27	31	26	22	24	20	17	17	15	13	10
8	50	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	23	18	23	19	15	18	15	12	13	11	9	7

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	1.0
10°-20°	177.7	2.8
20°-30°	268.7	4.3
30°-40°	325.1	5.2
40°-50°	343.7	5.5
50°-60°	323.5	5.1
60°-70°	268.4	4.3
70°-80°	188.5	3.0
80°-90°	109.6	1.7
90°-100°	465.9	7.4
100°-110°	884.9	14.1
110°-120°	782.1	12.4
120°-130°	649.1	10.3
130°-140°	534.1	8.5
140°-150°	403.7	6.4
150°-160°	282.7	4.5
160°-170°	166.3	2.6
170°-180°	54.1	0.9
0°-30°	508.4	8.1
0°-40°	833.5	13.3
0°-60°	1500.7	23.9
0°-90°	2067.2	32.9
90°-120°	2132.9	33.9
90°-150°	3719.9	59.1
90°-180°	4223.0	67.1
0°-180°	6290.2	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°	13	50	92	115	123	10
95°	46	148	956	525	357	48
105°	135	208	767	1613	1614	144
115°	230	295	675	1281	1535	228
125°	317	377	658	1082	1220	283
135°	375	446	639	948	1079	290
145°	431	493	629	789	869	271
155°	490	528	611	692	722	226
165°	533	550	586	620	630	151
175°	556	558	562	570	567	53
180°	558	558	558	558	558	



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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°	22.0	29.0	36.3	43.2	50.0	56.9	65.4	72.6	80.1	87.7	92.2
90°	12.8	21.6	31.4	38.9	46.6	53.3	66.9	73.9	83.1	92.4	96.0
92.5°	23.7	35.2	51.4	70.6	92.5	121.7	184.3	276.4	366.1	416.5	363.1
95°	45.7	54.4	70.7	90.3	122.0	174.0	276.0	462.2	730.7	956.4	986.0
97.5°	73.5	78.1	92.2	109.9	137.1	181.3	261.3	416.2	683.1	999.4	1216.6
100°	91.3	95.6	107.4	124.8	149.9	190.2	261.2	391.3	621.1	936.3	1221.1
102.5°	108.9	114.3	124.8	140.8	164.5	202.7	267.4	382.5	578.9	858.9	1152.4
105°	134.8	141.3	150.1	166.5	189.4	225.8	284.4	381.4	540.7	766.9	1028.3
107.5°	164.9	169.7	177.9	194.5	216.0	251.6	305.5	394.0	530.7	713.6	927.7
110°	184.4	188.9	196.6	212.1	234.0	267.6	321.5	403.9	530.1	694.6	876.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	203.1	207.3	215.7	230.0	251.7	285.0	336.9	414.6	532.6	683.7	846.6
115°	230.0	234.8	243.9	256.3	278.6	311.5	360.5	431.5	538.6	675.1	816.8
117.5°	258.8	262.7	270.4	283.3	303.7	337.2	383.7	449.0	545.3	669.7	800.8
120°	277.5	280.1	288.3	300.9	320.0	353.3	399.5	461.3	550.4	666.8	791.5
122.5°	295.0	297.3	305.0	316.3	336.8	368.8	414.9	472.9	555.5	663.0	781.7
125°	317.3	321.5	327.9	339.8	360.4	393.0	436.6	491.0	564.1	658.0	766.2
127.5°	337.5	340.8	348.6	362.2	383.7	416.0	457.3	506.7	570.0	651.1	746.1
130°	348.3	352.5	361.1	377.4	398.0	431.0	470.9	516.1	574.7	647.3	733.5
132.5°	359.7	363.1	374.3	389.6	412.1	443.0	482.3	526.2	578.9	644.1	722.3
135°	374.9	379.3	390.3	408.9	431.9	460.9	498.2	538.8	584.8	638.6	704.6
137.5°	391.0	394.9	406.8	424.4	448.1	475.5	509.7	547.1	587.5	635.0	689.7
140°	402.3	405.5	417.4	435.8	458.6	484.9	517.9	553.2	590.5	632.4	681.6
142.5°	414.0	417.3	428.4	446.1	468.2	493.5	525.5	557.7	593.1	631.1	674.9
145°	431.1	434.3	445.1	460.2	480.9	504.9	533.4	563.0	594.7	628.7	664.7
147.5°	450.6	451.6	461.1	476.6	493.8	515.4	542.2	568.0	595.8	624.7	655.7
150°	462.9	463.8	472.5	485.4	501.7	522.5	546.5	570.6	595.8	622.1	649.5
152.5°	473.7	473.9	482.7	494.8	509.5	528.6	550.1	572.4	594.1	617.7	642.4
155°	489.6	490.7	497.2	508.2	520.3	536.7	555.3	573.9	591.4	611.1	632.0
157.5°	505.1	505.1	511.2	519.8	530.3	543.3	559.0	573.9	588.6	604.4	621.2
160°	514.7	514.7	519.2	526.8	535.6	547.6	560.7	573.9	586.0	599.1	613.3
162.5°	523.5	522.6	526.1	532.9	540.8	550.3	562.5	573.9	583.3	593.8	606.3
165°	533.4	533.4	535.6	541.0	546.5	553.1	563.0	571.7	578.2	586.0	594.7
167.5°	543.3	542.2	543.3	547.4	550.4	555.5	562.7	569.1	573.1	578.1	584.2
170°	547.6	546.5	547.6	550.9	553.1	556.4	561.8	567.3	569.5	572.8	577.2
172.5°	552.0	550.9	551.1	553.6	554.9	557.2	561.0	565.6	566.0	567.5	571.1
175°	556.4	555.3	555.3	556.4	557.5	557.5	559.7	563.0	561.8	561.8	564.0
177.5°	558.4	557.5	556.6	557.5	557.5	557.5	558.4	560.1	558.4	558.4	559.2
180°	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5



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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°	97.2	102.1	107.1	110.1	111.8	113.4	114.6	116.1
90°	101.8	107.6	113.4	116.4	118.9	121.2	121.4	122.7
92.5°	293.4	244.8	216.3	197.3	185.7	181.1	178.7	179.9
95°	884.2	718.8	576.5	473.2	420.9	388.5	370.2	357.4
97.5°	1266.9	1208.1	1105.2	993.7	916.4	852.0	820.5	799.1
100°	1385.4	1411.7	1362.4	1284.1	1190.1	1124.4	1092.6	1085.1
102.5°	1376.1	1489.0	1508.8	1477.8	1420.6	1373.5	1340.2	1334.5
105°	1283.2	1476.8	1589.3	1636.9	1640.4	1632.9	1618.9	1613.6
107.5°	1153.8	1359.5	1516.2	1616.5	1671.8	1697.9	1710.1	1714.0
110°	1075.5	1268.8	1431.3	1554.3	1633.4	1680.6	1701.7	1712.9



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CATALOG NUMBER: S124DIP-S575D1205U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1017.1	1188.4	1342.0	1464.9	1554.5	1611.5	1640.4	1657.6
115°	957.2	1095.5	1227.3	1334.8	1422.5	1489.3	1525.5	1535.4
117.5°	925.3	1040.2	1144.3	1235.9	1311.0	1367.4	1404.3	1412.3
120°	909.8	1014.9	1105.9	1185.9	1249.6	1299.1	1328.9	1342.3
122.5°	896.4	998.0	1081.0	1151.3	1205.3	1247.6	1272.9	1286.2
125°	874.4	971.8	1050.4	1112.7	1157.4	1190.2	1212.0	1219.6
127.5°	847.8	940.8	1019.1	1078.3	1123.4	1152.7	1171.4	1179.0
130°	827.4	916.8	994.2	1054.2	1100.1	1128.5	1147.0	1154.5
132.5°	806.3	890.4	965.9	1025.9	1070.9	1102.8	1120.4	1127.9
135°	776.3	850.1	919.5	976.1	1020.9	1052.5	1071.0	1078.6
137.5°	749.4	812.1	870.7	921.9	963.7	994.7	1009.9	1018.6
140°	734.1	787.6	839.1	886.5	925.7	950.6	966.7	976.3
142.5°	720.1	767.2	811.4	852.5	887.2	910.2	924.4	931.3
145°	700.7	739.0	772.8	804.3	832.3	851.6	863.2	869.3
147.5°	684.8	714.4	740.9	765.3	786.0	802.5	811.3	813.9
150°	675.8	701.0	722.8	742.5	760.1	774.3	780.9	782.0
152.5°	666.1	687.8	707.9	724.2	739.0	750.6	754.6	755.7
155°	651.7	669.2	685.6	698.8	709.7	718.5	721.8	721.8
157.5°	636.1	650.8	664.6	675.1	683.4	690.0	692.0	692.0
160°	626.5	638.5	650.5	659.3	665.9	672.5	673.5	673.5
162.5°	616.8	627.2	636.6	644.4	649.2	655.8	657.0	656.0
165°	603.5	610.0	617.7	623.2	627.5	632.0	630.8	629.8
167.5°	590.6	595.6	601.7	605.0	607.2	610.0	609.8	609.0
170°	582.7	586.0	590.3	593.6	595.8	596.9	595.8	595.8
172.5°	575.6	578.1	580.7	583.1	584.4	585.5	584.4	582.7
175°	566.3	567.3	569.5	569.5	569.5	571.7	569.5	567.3
177.5°	560.1	561.0	561.0	561.8	561.0	561.8	560.1	558.4
180°	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5

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