

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: P332924-927

Luminaire Tested: **S124RDIP-S575D1205U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332924-927
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: S124RDIP-S575D1205U927-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5270.3 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

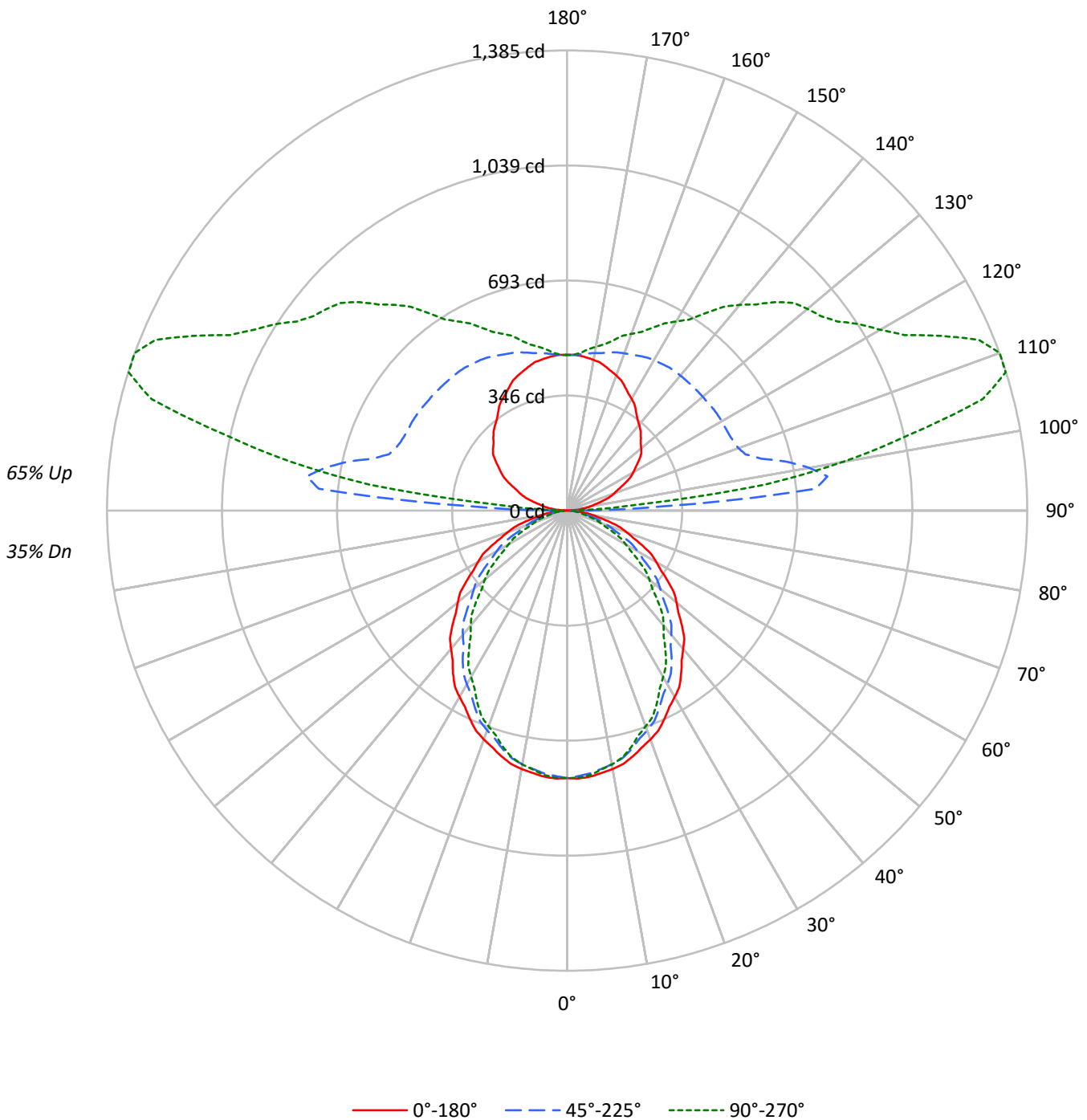
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332924-927

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	35
1	95	91	87	83	85	82	79	76	66	64	62	51	50	49	38	37	36	30
2	86	79	73	68	78	72	67	63	58	55	52	45	43	41	34	32	31	26
3	79	70	63	57	71	63	57	52	51	47	44	40	37	35	30	28	26	22
4	72	62	54	48	65	56	50	45	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	24	22	20	16
6	61	49	41	36	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	37	31	51	41	34	29	33	28	25	27	23	20	20	18	16	13
8	52	40	33	28	47	37	30	26	30	25	22	24	21	18	18	16	14	12
9	49	37	29	25	44	34	27	23	28	23	19	22	19	16	17	15	13	11
10	45	34	27	22	41	31	25	20	26	21	17	21	17	15	16	13	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6500	6500	6500
5°	6514	6434	6474
10°	6473	6357	6357
15°	6399	6224	6177
20°	6296	6048	5936
25°	6167	5842	5694
30°	6039	5626	5390
35°	5899	5401	5084
40°	5730	5145	4755
45°	5574	4891	4419
50°	5397	4598	4064
55°	5206	4294	3678
60°	4996	3961	3284
65°	4804	3543	2896
70°	4525	3085	2460
75°	4173	2558	1999
80°	3640	1948	1836
85°	3084	1769	1658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	1.4
10°-20°	210.9	4.0
20°-30°	304.5	5.8
30°-40°	345.2	6.5
40°-50°	333.3	6.3
50°-60°	277.2	5.3
60°-70°	191.4	3.6
70°-80°	97.0	1.8
80°-90°	27.5	0.5
90°-100°	338.4	6.4
100°-110°	704.3	13.4
110°-120°	630.9	12.0
120°-130°	530.7	10.1
130°-140°	442.5	8.4
140°-150°	338.0	6.4
150°-160°	237.6	4.5
160°-170°	139.8	2.7
170°-180°	45.5	0.9
0°-30°	591.0	11.2
0°-40°	936.2	17.8
0°-60°	1546.7	29.3
0°-90°	1862.6	35.3
90°-120°	1673.6	31.8
90°-150°	2984.8	56.6
90°-180°	3408.0	64.7
0°-180°	5270.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	801	794	800	799	76
15°	766	760	745	743	739	216
25°	692	680	656	646	639	319
35°	599	578	548	528	516	374
45°	488	465	428	399	387	376
55°	370	344	305	274	261	331
65°	252	224	186	160	152	248
75°	134	111	82	68	64	141
85°	33	22	19	18	18	37
90°	1	7	17	18	19	3
95°	30	96	750	371	225	34
105°	108	156	604	1300	1295	115
115°	190	238	538	1035	1244	188
125°	264	314	536	880	992	235
135°	314	374	531	782	887	243
145°	362	414	528	659	724	227
155°	412	444	514	582	607	190
165°	448	462	492	522	529	127
175°	468	469	472	479	477	44
180°	469	469	469	469	469	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	807.1	806.6	806.2	805.7	805.3	804.5	803.3	802.1	800.8	799.6	800.8
5°	803.8	803.3	802.7	802.2	801.7	800.6	798.9	797.3	795.6	794.0	795.4
7.5°	796.5	796.0	795.4	794.9	794.2	792.9	790.8	788.6	786.5	784.3	785.2
10°	789.6	789.0	788.3	787.6	787.0	785.4	782.9	780.4	777.9	775.5	776.0
12.5°	780.8	780.0	779.2	778.4	777.6	775.8	772.9	769.9	767.1	764.1	764.5
15°	765.6	764.4	763.2	761.9	760.7	758.4	754.9	751.5	748.1	744.7	744.4
17.5°	747.3	745.4	743.7	741.9	740.1	737.2	733.1	729.0	724.8	720.7	720.0
20°	732.9	731.2	729.4	727.6	725.8	722.6	718.0	713.3	708.6	704.0	702.9
22.5°	717.2	715.2	713.2	711.1	709.2	705.7	700.7	695.7	690.7	685.7	684.0
25°	692.3	689.8	687.3	684.8	682.4	678.3	672.7	667.1	661.5	655.9	653.6
27.5°	666.1	663.1	660.0	656.9	653.7	649.2	643.2	637.2	631.2	625.2	622.3
30°	647.8	644.4	641.0	637.6	634.2	629.2	622.8	616.4	609.9	603.5	600.1
32.5°	628.7	624.8	620.9	617.0	613.2	607.9	601.3	594.6	588.0	581.3	577.3
35°	598.6	594.2	589.8	585.4	581.1	575.4	568.5	561.7	554.8	548.0	543.4
37.5°	566.4	561.9	557.4	552.9	548.3	542.2	534.6	527.0	519.5	511.9	506.7
40°	543.7	539.2	534.6	530.1	525.6	519.4	511.7	503.8	496.1	488.2	482.4
42.5°	522.0	517.3	512.5	507.8	503.0	496.6	488.5	480.3	472.2	464.1	458.2
45°	488.2	483.2	478.1	473.0	467.9	461.3	453.0	444.9	436.7	428.4	421.7
47.5°	453.4	448.1	442.8	437.6	432.4	425.5	416.9	408.4	399.9	391.3	384.4
50°	429.7	424.3	419.0	413.6	408.3	401.2	392.4	383.7	374.9	366.1	359.3
52.5°	405.5	400.3	395.1	389.8	384.5	377.5	368.4	359.5	350.5	341.5	334.5
55°	369.9	364.4	358.9	353.4	347.9	340.7	331.8	323.0	314.0	305.1	298.0
57.5°	334.6	328.9	323.2	317.5	311.8	304.6	295.8	287.0	278.3	269.5	262.3
60°	309.4	304.0	298.5	293.0	287.6	280.4	271.6	262.8	254.1	245.3	238.2
62.5°	286.8	281.1	275.4	269.7	264.0	256.7	247.6	238.7	229.7	220.7	214.1
65°	251.5	245.7	239.7	233.9	227.9	220.6	211.8	203.1	194.3	185.5	179.7
67.5°	214.9	209.2	203.6	198.0	192.3	185.4	177.3	169.1	161.1	152.9	147.8
70°	191.7	185.9	180.2	174.4	168.7	161.9	154.1	146.3	138.5	130.7	126.2
72.5°	167.1	161.8	156.6	151.5	146.2	140.0	132.6	125.2	117.8	110.4	106.6
75°	133.8	128.7	123.7	118.6	113.5	107.7	101.3	94.8	88.4	82.0	78.8
77.5°	100.0	95.7	91.4	87.1	82.8	78.0	72.8	67.7	62.4	57.2	55.4
80°	78.3	74.3	70.3	66.4	62.4	58.4	54.3	50.1	46.0	41.9	41.5
82.5°	59.6	55.9	52.3	48.6	45.0	42.0	39.6	37.2	34.9	32.6	32.2
85°	33.3	30.6	27.8	25.0	22.3	20.8	20.4	20.0	19.5	19.1	18.9
87.5°	11.6	11.0	10.7	10.0	9.3	8.8	9.8	9.7	10.0	10.2	9.9
90°	1.0	2.8	5.5	6.4	7.4	7.4	12.9	12.9	14.7	16.6	15.7
92.5°	10.5	15.3	23.9	35.2	48.6	67.7	114.5	185.9	255.6	292.0	243.2
95°	30.3	33.1	42.4	54.3	76.4	115.1	195.1	346.1	566.1	750.2	771.4
97.5°	54.5	54.5	62.4	73.4	92.4	124.8	186.5	311.2	529.8	790.2	969.2
100°	69.9	69.9	76.4	87.5	105.0	134.4	188.7	292.7	480.5	740.1	975.7
102.5°	84.7	86.2	91.9	102.2	118.9	146.9	196.1	287.6	447.3	677.5	920.5
105°	107.7	110.4	115.1	126.1	142.7	169.4	213.6	289.9	418.8	603.9	820.1
107.5°	133.1	134.9	139.6	151.3	167.2	193.5	234.0	303.6	413.7	562.6	739.2
110°	150.0	151.9	156.5	167.5	184.1	209.0	249.5	313.9	415.2	548.7	698.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	166.3	168.1	173.4	183.7	200.3	225.1	264.2	325.0	419.5	542.0	675.8
115°	189.6	192.4	198.8	208.0	225.5	250.4	287.2	342.5	428.0	538.5	654.5
117.5°	213.9	216.5	222.2	232.3	248.7	274.5	309.5	360.3	437.0	537.6	644.9
120°	230.1	232.0	238.4	248.5	264.2	289.9	325.0	372.8	443.7	537.6	639.8
122.5°	244.9	246.7	253.2	262.5	279.6	304.7	339.7	384.6	450.4	536.9	633.9
125°	264.2	267.8	273.4	283.5	301.0	326.8	359.9	402.3	460.3	535.8	624.1
127.5°	281.3	284.2	290.9	302.5	320.7	346.7	378.7	417.6	468.2	533.7	611.0
130°	290.9	294.5	301.9	315.8	333.2	359.9	391.3	427.1	474.0	533.0	602.9
132.5°	300.5	303.4	313.0	326.1	345.0	370.3	401.6	436.7	479.2	532.3	595.6
135°	313.9	317.6	326.8	342.5	361.8	385.7	416.1	449.2	487.0	531.2	584.6
137.5°	327.3	330.8	341.0	355.8	376.0	398.8	427.1	458.0	491.5	530.9	575.0
140°	336.9	339.7	349.8	365.4	384.8	406.9	434.5	463.9	495.3	530.2	569.8
142.5°	347.2	350.0	359.3	374.3	392.8	414.2	441.1	468.3	498.2	530.2	565.4
145°	361.8	364.6	373.8	386.6	404.1	424.4	448.3	473.2	499.9	528.4	557.9
147.5°	378.1	379.1	387.1	400.4	414.9	433.2	455.7	477.4	500.7	525.1	551.0
150°	388.5	389.4	396.7	407.8	421.6	439.1	459.3	479.6	500.7	522.8	545.9
152.5°	398.0	398.2	405.6	415.9	428.3	444.3	462.3	481.1	499.3	519.2	540.0
155°	411.5	412.4	417.9	427.1	437.3	451.1	466.7	482.4	497.1	513.7	531.2
157.5°	424.5	424.5	429.7	436.9	445.7	456.6	469.8	482.4	494.7	507.9	522.1
160°	432.6	432.6	436.3	442.8	450.1	460.3	471.3	482.4	492.5	503.5	515.5
162.5°	440.0	439.3	442.2	447.9	454.6	462.5	472.8	482.4	490.3	499.1	509.6
165°	448.3	448.3	450.1	454.7	459.3	464.9	473.2	480.5	486.0	492.5	499.9
167.5°	456.6	455.7	456.6	460.1	462.6	466.9	472.9	478.3	481.6	485.8	491.0
170°	460.3	459.3	460.3	463.0	464.9	467.6	472.2	476.8	478.6	481.4	485.1
172.5°	463.9	463.0	463.2	465.2	466.4	468.3	471.5	475.4	475.7	477.0	480.0
175°	467.6	466.7	466.7	467.6	468.6	468.6	470.4	473.2	472.2	472.2	474.0
177.5°	469.3	468.6	467.8	468.6	468.6	468.6	469.3	470.7	469.3	469.3	470.0
180°	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	802.1	803.3	804.5	805.0	804.9	804.8	804.7	804.6
5°	796.7	798.1	799.5	800.0	799.7	799.5	799.2	798.9
7.5°	786.1	787.0	787.9	788.1	787.7	787.2	786.8	786.3
10°	776.6	777.1	777.7	777.7	777.1	776.6	776.0	775.5
12.5°	764.8	765.1	765.5	765.2	764.5	763.7	763.0	762.2
15°	744.1	743.9	743.5	743.0	742.0	741.0	740.1	739.1
17.5°	719.2	718.4	717.6	716.5	715.1	713.7	712.2	710.7
20°	701.8	700.7	699.6	698.2	696.4	694.6	692.8	691.0
22.5°	682.5	680.8	679.1	677.6	676.1	674.7	673.3	671.8
25°	651.3	648.9	646.6	644.8	643.3	642.0	640.6	639.2
27.5°	619.4	616.6	613.7	611.2	609.3	607.3	605.4	603.4
30°	596.7	593.2	589.8	587.0	584.8	582.6	580.4	578.2
32.5°	573.4	569.4	565.4	562.4	560.3	558.3	556.1	554.1
35°	538.7	534.0	529.4	525.9	523.4	520.9	518.4	515.9
37.5°	501.5	496.3	491.1	487.3	484.7	482.3	479.8	477.4
40°	476.7	471.0	465.2	461.1	458.6	456.1	453.7	451.2
42.5°	452.3	446.5	440.6	436.4	433.8	431.3	428.6	426.1
45°	415.0	408.3	401.6	397.0	394.5	392.1	389.6	387.1
47.5°	377.4	370.4	363.5	358.6	355.9	353.2	350.5	347.8
50°	352.4	345.6	338.7	334.1	331.4	328.8	326.2	323.6
52.5°	327.6	320.6	313.7	308.9	306.1	303.4	300.7	298.0
55°	290.9	283.8	276.6	271.8	269.2	266.6	264.0	261.3
57.5°	255.0	247.8	240.6	236.0	234.0	232.0	230.0	228.1
60°	231.1	223.9	216.8	212.2	210.0	207.8	205.7	203.4
62.5°	207.6	201.0	194.4	190.2	188.5	186.7	185.0	183.2
65°	173.8	167.9	162.0	158.2	156.6	155.0	153.3	151.6
67.5°	142.8	137.7	132.6	129.2	127.4	125.6	123.7	121.9
70°	121.7	117.2	112.6	109.6	108.3	106.9	105.5	104.2
72.5°	102.7	98.9	95.0	92.4	91.2	89.9	88.6	87.4
75°	75.7	72.6	69.4	67.4	66.5	65.8	65.0	64.1
77.5°	53.6	51.7	49.8	48.8	48.6	48.3	48.1	47.8
80°	41.1	40.7	40.2	40.0	39.8	39.7	39.6	39.5
82.5°	31.9	31.6	31.4	31.1	31.0	30.8	30.7	30.6
85°	18.5	18.3	18.0	17.9	17.9	17.9	17.9	17.9
87.5°	10.0	10.1	10.1	10.1	10.5	10.8	10.7	10.8
90°	16.6	17.5	18.4	18.4	19.3	20.3	19.3	19.3
92.5°	180.8	136.0	108.3	89.8	79.0	74.0	70.9	70.9
95°	682.1	539.4	416.1	326.8	281.7	253.2	236.5	224.6
97.5°	1007.8	954.7	864.7	768.7	702.5	647.1	619.5	600.4
100°	1110.2	1128.5	1083.5	1015.3	935.3	879.1	851.5	844.1
102.5°	1105.0	1196.3	1209.3	1181.0	1131.9	1091.2	1062.1	1056.2
105°	1030.9	1190.3	1281.4	1319.1	1321.0	1313.6	1300.7	1295.1
107.5°	925.8	1095.4	1223.8	1305.8	1351.3	1372.3	1381.5	1383.9
110°	862.5	1021.8	1155.2	1256.5	1321.8	1360.5	1377.1	1385.4



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CATALOG NUMBER: S124RDIP-S575D1205U927-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	816.1	957.0	1083.1	1184.3	1258.5	1305.3	1328.5	1342.0
115°	769.5	882.8	990.5	1078.9	1151.6	1206.8	1236.3	1243.6
117.5°	746.7	840.4	925.1	1000.1	1062.1	1108.5	1138.3	1144.0
120°	736.4	822.0	895.6	961.0	1013.5	1054.0	1077.9	1088.1
122.5°	727.5	810.2	877.3	934.5	978.9	1013.5	1033.7	1043.9
125°	712.5	791.6	855.2	905.8	942.6	969.3	986.8	992.3
127.5°	694.0	769.8	833.1	881.1	918.1	941.9	956.6	962.1
130°	679.4	752.1	814.7	863.5	901.2	924.2	938.9	944.4
132.5°	663.8	732.2	793.3	842.1	879.1	905.1	919.0	924.6
135°	642.5	702.3	758.5	804.5	841.4	867.1	881.9	887.4
137.5°	623.2	673.8	721.1	762.7	797.2	822.6	834.7	841.4
140°	612.1	655.4	696.8	735.5	767.7	788.0	800.8	808.2
142.5°	601.8	639.9	675.5	709.0	737.5	756.3	767.7	772.9
145°	587.3	618.6	646.2	672.0	695.0	710.7	719.9	724.5
147.5°	575.4	600.2	622.3	642.5	659.5	672.9	679.9	681.5
150°	568.0	589.1	607.5	624.1	638.8	650.8	656.3	657.3
152.5°	559.8	578.1	595.0	608.6	621.2	630.9	634.2	635.2
155°	547.7	562.4	576.2	587.3	596.5	603.9	606.7	606.7
157.5°	534.6	547.0	558.6	567.4	574.4	580.0	581.6	581.6
160°	526.6	536.6	546.8	554.1	559.7	565.2	566.1	566.1
162.5°	518.4	527.1	535.0	541.6	545.7	551.2	552.2	551.4
165°	507.2	512.7	519.2	523.8	527.4	531.2	530.2	529.3
167.5°	496.4	500.6	505.7	508.5	510.3	512.7	512.5	511.8
170°	489.7	492.5	496.1	498.9	500.7	501.7	500.7	500.7
172.5°	483.8	485.8	488.1	490.0	491.2	492.1	491.2	489.7
175°	475.9	476.8	478.6	478.6	478.6	480.5	478.6	476.8
177.5°	470.7	471.5	471.5	472.2	471.5	472.2	470.7	469.3
180°	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6

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