

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: P332924-830

Luminaire Tested: **S124RDIP-S575D1205U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332924-830
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: S124RDIP-S575D1205U830-4F0-1E-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: 6270.6 lumens
Efficiency: N/A
Efficacy: 126.9 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

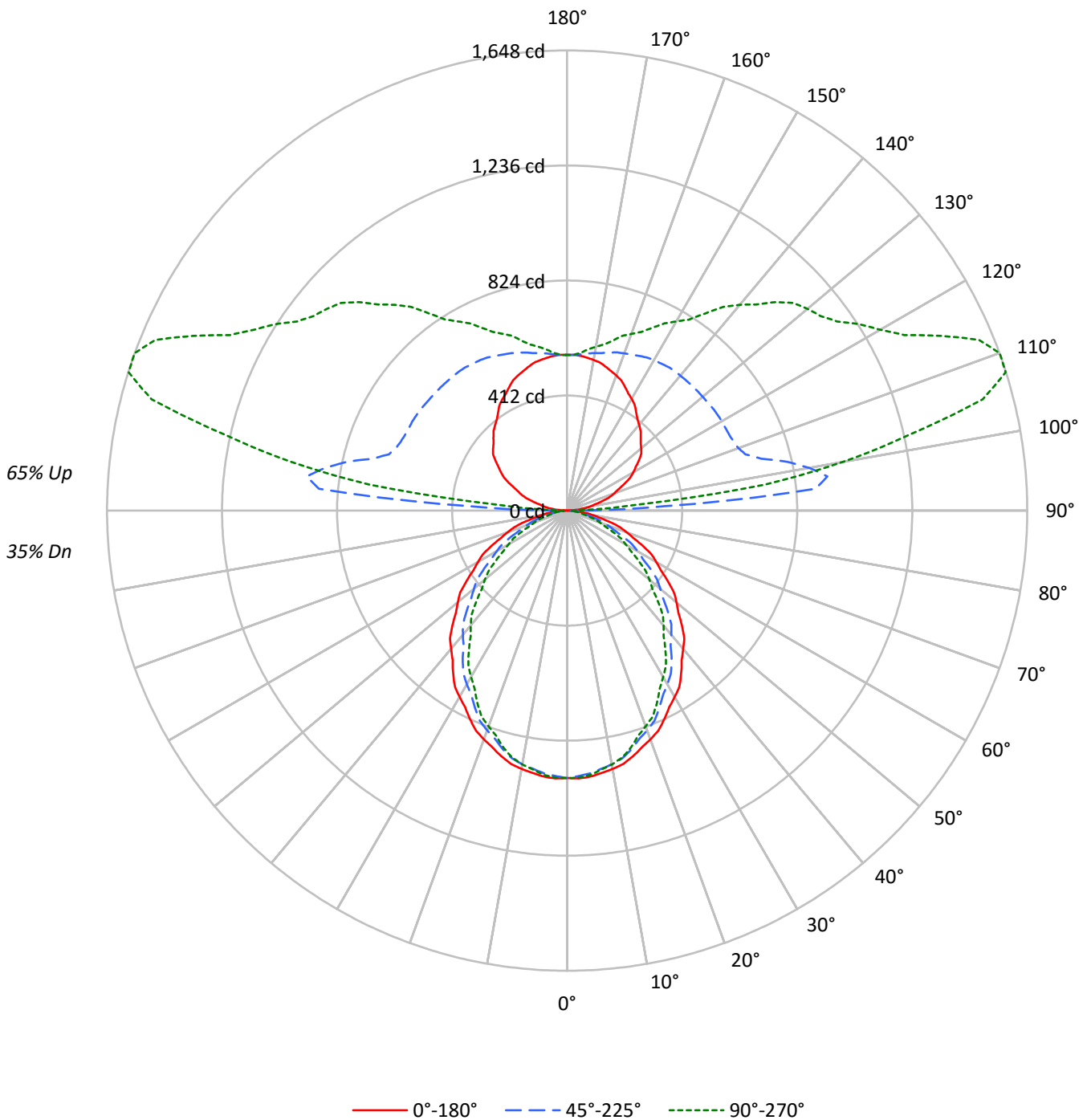
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	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°	7733	7733	7733
5°	7750	7656	7703
10°	7702	7564	7564
15°	7614	7405	7350
20°	7491	7196	7064
25°	7337	6951	6774
30°	7185	6693	6413
35°	7019	6427	6050
40°	6817	6122	5658
45°	6632	5819	5259
50°	6420	5471	4835
55°	6194	5111	4376
60°	5945	4713	3907
65°	5717	4216	3446
70°	5384	3670	2924
75°	4966	3044	2380
80°	4328	2320	2180
85°	3668	2103	1973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.0	1.4
10°-20°	250.9	4.0
20°-30°	362.3	5.8
30°-40°	410.7	6.5
40°-50°	396.6	6.3
50°-60°	329.8	5.3
60°-70°	227.7	3.6
70°-80°	115.4	1.8
80°-90°	32.7	0.5
90°-100°	402.7	6.4
100°-110°	838.0	13.4
110°-120°	750.6	12.0
120°-130°	631.4	10.1
130°-140°	526.5	8.4
140°-150°	402.2	6.4
150°-160°	282.7	4.5
160°-170°	166.3	2.7
170°-180°	54.1	0.9
0°-30°	703.2	11.2
0°-40°	1113.9	17.8
0°-60°	1840.3	29.3
0°-90°	2216.2	35.3
90°-120°	1991.3	31.8
90°-150°	3551.4	56.6
90°-180°	4054.0	64.7
0°-180°	6270.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	956	953	945	952	951	91
15°	911	904	886	884	879	257
25°	824	810	780	768	760	379
35°	712	688	652	628	614	445
45°	581	553	510	475	461	448
55°	440	410	363	326	311	394
65°	299	267	221	190	180	295
75°	159	132	98	81	76	168
85°	40	26	23	21	21	45
90°	1	9	20	22	23	4
95°	36	114	893	442	267	40
105°	128	186	718	1547	1541	137
115°	226	283	641	1231	1480	224
125°	314	374	637	1048	1181	280
135°	373	445	632	930	1056	289
145°	430	493	629	784	862	270
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°	957.9	957.9	957.9	957.9	957.9	957.9	957.9	957.9	957.9	957.9	957.9
2.5°	960.3	959.7	959.2	958.7	958.2	957.2	955.7	954.3	952.8	951.4	952.8
5°	956.4	955.7	955.1	954.4	953.9	952.5	950.6	948.6	946.6	944.7	946.3
7.5°	947.7	947.1	946.4	945.7	945.0	943.4	940.8	938.3	935.8	933.2	934.2
10°	939.5	938.8	937.9	937.1	936.3	934.4	931.5	928.5	925.6	922.7	923.3
12.5°	929.0	928.0	927.1	926.1	925.2	923.0	919.5	916.1	912.7	909.2	909.6
15°	911.0	909.5	908.0	906.5	905.0	902.3	898.2	894.2	890.0	886.0	885.7
17.5°	889.1	886.9	884.9	882.7	880.6	877.1	872.2	867.3	862.4	857.5	856.7
20°	872.0	870.0	867.8	865.7	863.6	859.8	854.2	848.7	843.1	837.6	836.3
22.5°	853.3	850.9	848.6	846.1	843.8	839.6	833.7	827.7	821.8	815.9	813.9
25°	823.7	820.8	817.7	814.8	811.9	807.1	800.4	793.7	787.0	780.4	777.6
27.5°	792.6	788.9	785.2	781.6	777.8	772.4	765.3	758.2	751.0	743.9	740.5
30°	770.8	766.8	762.7	758.7	754.6	748.7	741.0	733.4	725.7	718.0	714.0
32.5°	748.0	743.4	738.8	734.1	729.6	723.3	715.4	707.5	699.6	691.6	686.9
35°	712.2	707.0	701.7	696.5	691.4	684.7	676.5	668.4	660.2	652.1	646.5
37.5°	673.9	668.5	663.2	657.8	652.3	645.2	636.1	627.1	618.1	609.1	602.9
40°	646.9	641.5	636.1	630.7	625.4	618.0	608.8	599.5	590.2	580.9	574.0
42.5°	621.0	615.5	609.8	604.2	598.5	590.9	581.2	571.5	561.8	552.1	545.2
45°	580.9	574.9	568.8	562.8	556.8	548.8	539.0	529.3	519.5	509.7	501.7
47.5°	539.4	533.2	526.9	520.7	514.4	506.2	496.1	486.0	475.8	465.6	457.3
50°	511.2	504.8	498.5	492.1	485.8	477.4	466.9	456.6	446.1	435.6	427.5
52.5°	482.5	476.3	470.0	463.8	457.5	449.1	438.4	427.7	417.0	406.3	398.0
55°	440.1	433.6	427.1	420.5	414.0	405.4	394.8	384.3	373.6	363.1	354.6
57.5°	398.1	391.3	384.6	377.8	371.0	362.4	351.9	341.5	331.1	320.7	312.1
60°	368.2	361.7	355.2	348.6	342.1	333.7	323.2	312.7	302.4	291.9	283.4
62.5°	341.2	334.4	327.6	320.8	314.1	305.4	294.6	284.0	273.2	262.6	254.8
65°	299.3	292.3	285.2	278.2	271.2	262.5	252.0	241.7	231.2	220.7	213.8
67.5°	255.7	248.9	242.2	235.5	228.8	220.6	210.9	201.2	191.6	181.9	175.9
70°	228.1	221.2	214.4	207.5	200.8	192.7	183.3	174.1	164.8	155.5	150.1
72.5°	198.8	192.6	186.3	180.2	174.0	166.5	157.8	149.0	140.2	131.4	126.9
75°	159.2	153.2	147.1	141.1	135.1	128.2	120.6	112.8	105.2	97.6	93.8
77.5°	118.9	113.9	108.8	103.6	98.5	92.8	86.6	80.5	74.3	68.1	65.9
80°	93.1	88.4	83.7	79.0	74.3	69.5	64.6	59.7	54.8	49.9	49.4
82.5°	70.9	66.5	62.2	57.9	53.5	50.0	47.1	44.3	41.6	38.7	38.4
85°	39.6	36.4	33.1	29.8	26.6	24.7	24.2	23.8	23.2	22.7	22.4
87.5°	13.8	13.1	12.7	11.9	11.1	10.5	11.7	11.5	11.9	12.2	11.8
90°	1.1	3.3	6.6	7.6	8.8	8.8	15.4	15.4	17.5	19.7	18.7
92.5°	12.4	18.2	28.5	41.8	57.9	80.6	136.3	221.2	304.1	347.4	289.4
95°	36.1	39.4	50.4	64.7	90.9	137.0	232.1	411.8	673.5	892.6	917.8
97.5°	64.8	64.8	74.3	87.4	110.0	148.5	221.9	370.2	630.4	940.2	1153.1
100°	83.2	83.2	90.9	104.1	124.9	159.9	224.5	348.3	571.7	880.5	1160.9
102.5°	100.8	102.5	109.3	121.6	141.5	174.8	233.3	342.1	532.3	806.1	1095.2
105°	128.2	131.4	137.0	150.1	169.8	201.5	254.1	345.0	498.3	718.5	975.8
107.5°	158.3	160.5	166.1	180.0	198.9	230.3	278.4	361.2	492.2	669.4	879.5
110°	178.5	180.7	186.2	199.3	219.0	248.6	296.8	373.4	494.0	652.8	831.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	197.8	200.0	206.3	218.6	238.4	267.9	314.3	386.6	499.2	644.9	804.1
115°	225.6	228.9	236.6	247.5	268.3	297.9	341.7	407.5	509.3	640.7	778.7
117.5°	254.5	257.6	264.4	276.4	296.0	326.6	368.3	428.7	520.0	639.6	767.3
120°	273.8	276.0	283.7	295.7	314.3	345.0	386.6	443.6	527.9	639.6	761.2
122.5°	291.3	293.5	301.2	312.4	332.7	362.5	404.2	457.6	535.8	638.8	754.2
125°	314.3	318.7	325.3	337.3	358.2	388.8	428.2	478.6	547.6	637.4	742.5
127.5°	334.7	338.2	346.1	359.9	381.5	412.5	450.5	496.8	557.0	635.0	727.0
130°	346.1	350.4	359.2	375.7	396.4	428.2	465.5	508.2	564.0	634.1	717.4
132.5°	357.5	361.0	372.4	388.0	410.5	440.5	477.8	519.6	570.1	633.3	708.6
135°	373.4	377.9	388.8	407.5	430.5	458.9	495.0	534.5	579.4	632.0	695.5
137.5°	389.5	393.6	405.7	423.4	447.3	474.5	508.2	545.0	584.8	631.7	684.1
140°	400.9	404.2	416.2	434.8	457.8	484.1	517.0	552.0	589.3	630.8	678.0
142.5°	413.1	416.4	427.5	445.4	467.4	492.9	524.8	557.2	592.8	630.8	672.7
145°	430.5	433.8	444.7	460.0	480.8	504.9	533.4	563.0	594.7	628.7	663.7
147.5°	449.9	451.0	460.6	476.5	493.7	515.4	542.2	568.0	595.8	624.7	655.6
150°	462.2	463.3	472.0	485.2	501.6	522.5	546.5	570.6	595.8	622.1	649.5
152.5°	473.5	473.8	482.6	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°	957.9	957.9	957.9	957.9	957.9	957.9	957.9	957.9
2.5°	954.3	955.7	957.2	957.8	957.7	957.5	957.4	957.3
5°	947.9	949.6	951.2	951.9	951.5	951.2	950.8	950.6
7.5°	935.3	936.3	937.5	937.6	937.2	936.6	936.1	935.6
10°	924.0	924.6	925.3	925.3	924.6	924.0	923.3	922.7
12.5°	909.9	910.3	910.8	910.5	909.6	908.7	907.8	906.8
15°	885.3	885.0	884.7	884.0	882.8	881.7	880.5	879.4
17.5°	855.7	854.8	853.8	852.5	850.8	849.1	847.3	845.6
20°	835.0	833.7	832.4	830.7	828.6	826.4	824.3	822.2
22.5°	812.0	810.0	808.0	806.3	804.5	802.8	801.1	799.3
25°	774.9	772.0	769.3	767.1	765.4	763.8	762.2	760.5
27.5°	737.0	733.6	730.2	727.3	724.9	722.6	720.3	717.9
30°	709.9	705.8	701.7	698.4	695.8	693.1	690.6	688.0
32.5°	682.2	677.5	672.7	669.1	666.7	664.2	661.7	659.2
35°	640.9	635.4	629.9	625.7	622.7	619.7	616.8	613.9
37.5°	596.6	590.5	584.3	579.8	576.7	573.8	570.9	568.0
40°	567.2	560.3	553.5	548.7	545.6	542.7	539.8	536.9
42.5°	538.2	531.2	524.2	519.2	516.1	513.1	510.0	507.0
45°	493.8	485.8	477.8	472.3	469.4	466.5	463.5	460.6
47.5°	449.0	440.7	432.4	426.7	423.5	420.3	417.1	413.8
50°	419.3	411.2	403.0	397.5	394.4	391.2	388.1	385.0
52.5°	389.7	381.4	373.2	367.5	364.2	361.0	357.8	354.6
55°	346.1	337.6	329.1	323.4	320.3	317.2	314.1	310.9
57.5°	303.4	294.8	286.3	280.8	278.4	276.1	273.7	271.4
60°	274.9	266.5	258.0	252.5	249.9	247.2	244.7	242.0
62.5°	246.9	239.1	231.3	226.3	224.2	222.2	220.1	218.0
65°	206.8	199.7	192.7	188.2	186.3	184.4	182.4	180.4
67.5°	169.8	163.8	157.8	153.7	151.6	149.4	147.2	145.1
70°	144.8	139.4	133.9	130.4	128.8	127.2	125.5	123.9
72.5°	122.2	117.6	113.0	110.0	108.5	107.0	105.5	104.0
75°	90.0	86.3	82.6	80.2	79.2	78.2	77.3	76.3
77.5°	63.7	61.5	59.3	58.1	57.8	57.5	57.2	56.9
80°	48.9	48.4	47.9	47.6	47.4	47.2	47.1	46.9
82.5°	38.0	37.6	37.3	37.0	36.9	36.7	36.6	36.4
85°	22.1	21.8	21.4	21.3	21.3	21.3	21.3	21.3
87.5°	11.9	12.0	12.1	12.1	12.4	12.8	12.7	12.8
90°	19.7	20.8	21.9	21.9	23.0	24.1	23.0	23.0
92.5°	215.1	161.8	128.8	106.9	94.0	88.0	84.4	84.4
95°	811.5	641.8	495.0	388.8	335.2	301.2	281.4	267.2
97.5°	1199.1	1136.0	1028.9	914.5	835.8	770.0	737.1	714.4
100°	1320.9	1342.7	1289.1	1208.1	1112.8	1045.9	1013.1	1004.4
102.5°	1314.8	1423.3	1438.9	1405.1	1346.7	1298.3	1263.7	1256.7
105°	1226.6	1416.2	1524.6	1569.4	1571.7	1562.9	1547.6	1541.0
107.5°	1101.5	1303.3	1456.0	1553.7	1607.8	1632.8	1643.7	1646.6
110°	1026.2	1215.7	1374.5	1495.0	1572.7	1618.7	1638.5	1648.3



TEST NUMBER: P332924-830

CATALOG NUMBER: S124RDIP-S575D1205U830-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	971.0	1138.6	1288.6	1409.1	1497.4	1553.0	1580.6	1596.7
115°	915.6	1050.4	1178.5	1283.6	1370.2	1435.9	1470.9	1479.7
117.5°	888.4	999.9	1100.7	1189.9	1263.7	1318.9	1354.3	1361.1
120°	876.2	978.1	1065.6	1143.4	1205.9	1254.1	1282.5	1294.6
122.5°	865.6	964.0	1043.8	1111.9	1164.7	1205.9	1229.9	1242.0
125°	847.7	941.9	1017.5	1077.7	1121.5	1153.3	1174.1	1180.6
127.5°	825.8	915.9	991.2	1048.4	1092.4	1120.7	1138.2	1144.7
130°	808.3	894.8	969.3	1027.4	1072.2	1099.6	1117.1	1123.7
132.5°	789.9	871.2	943.9	1001.9	1045.9	1076.9	1093.4	1100.0
135°	764.5	835.7	902.5	957.2	1001.1	1031.7	1049.2	1055.8
137.5°	741.5	801.7	858.0	907.5	948.5	978.7	993.2	1001.1
140°	728.3	779.8	829.1	875.1	913.4	937.5	952.8	961.6
142.5°	716.0	761.4	803.7	843.6	877.5	899.8	913.4	919.5
145°	698.8	736.0	768.8	799.6	826.9	845.6	856.5	862.0
147.5°	684.6	714.1	740.4	764.5	784.7	800.6	809.0	810.9
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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