

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P994984

Luminaire Tested: S123RDR-B560DB2750-4F0-XX-W2A-A_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P994984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-30)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-B560DB2750-4F0-XX-W2A-A_4000K
Description: Define 3 Regressed Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

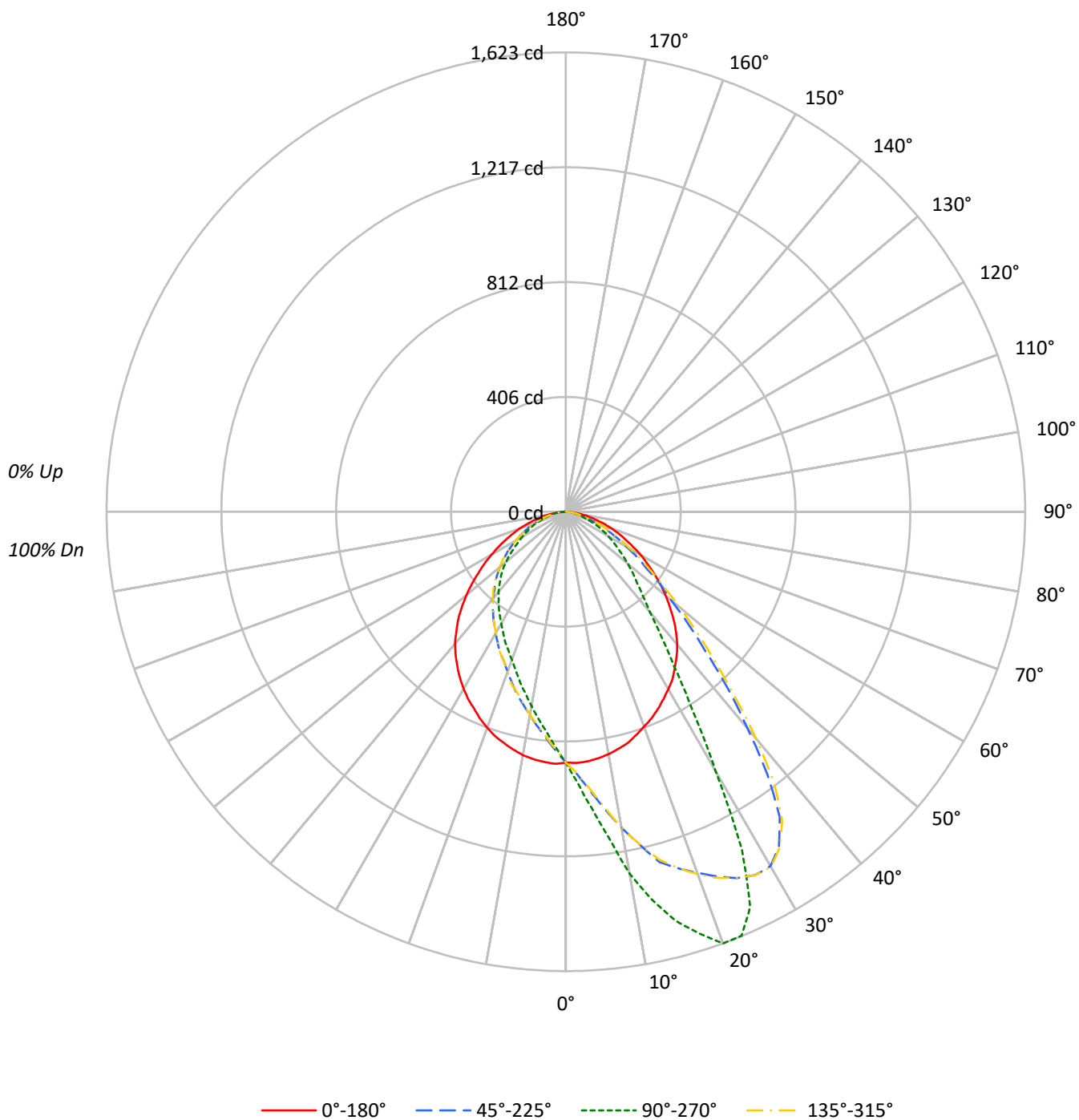
Lumens per Lamp: N/A
Luminaire Lumens: 2206.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.2 / 1.34
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24
Input Voltage (V):
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: 24 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	74			
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56			
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50			
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44			
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39			
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36			
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	29			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	9536	9536	9536	9536
5°	9565	11367	9588	8433
10°	9500	14193	9542	7619
15°	9424	16660	9424	6948
20°	9253	18593	9305	6377
25°	9134	18296	9117	6026
30°	8994	13151	8975	5666
35°	8821	8780	8780	5432
40°	8601	6469	8559	5191
45°	8197	5427	8187	4953
50°	7696	4789	7671	4623
55°	7131	4200	7075	4170
60°	6581	3739	6514	3821
65°	5932	3283	5970	3556
70°	5347	2578	5492	3248
75°	4637	2271	4824	2965
80°	3856	1977	4184	2913
85°	3088	1593	3372	3088

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 30°

Vertical Angle: 45°

Luminance: 15553 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	3.9
10°-20°	272.3	12.3
20°-30°	428.9	19.4
30°-40°	446.0	20.2
40°-50°	381.6	17.3
50°-60°	290.9	13.2
60°-70°	186.4	8.4
70°-80°	89.3	4.0
80°-90°	23.5	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	788.3	35.7
0°-40°	1234.3	56.0
0°-60°	1906.8	86.4
0°-90°	2206.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2206.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	886	886	886	886	886	
5°	885	1052	887	780	885	84
15°	846	1495	846	624	846	238
25°	769	1540	768	507	769	354
35°	671	668	668	413	671	420
45°	538	356	538	325	538	415
55°	380	224	377	222	380	341
65°	233	129	234	140	233	233
75°	112	55	116	71	112	120
85°	25	13	27	25	25	29
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	888.2	894.3	898.8	901.9	909.4	914.0	917.8	924.6	924.6	926.1	929.2
5°	885.2	898.1	907.2	919.3	935.2	942.8	953.4	962.5	975.4	982.3	989.1
7.5°	878.3	896.5	915.5	933.7	957.2	972.4	983.0	1006.5	1023.2	1043.7	1059.6
10°	869.2	894.3	918.5	946.6	978.5	1001.2	1017.1	1048.2	1080.1	1108.9	1133.2
12.5°	857.9	888.2	923.1	957.2	1002.0	1024.7	1050.5	1089.2	1134.7	1171.1	1203.7
15°	845.7	880.6	920.1	961.8	1017.9	1049.8	1086.9	1134.0	1184.8	1237.1	1281.9
17.5°	826.8	870.8	914.7	975.4	1041.4	1060.4	1092.2	1156.7	1219.7	1266.7	1321.3
20°	807.8	857.1	912.5	967.1	1038.4	1082.4	1112.0	1180.2	1247.7	1304.6	1357.0
22.5°	790.4	841.9	899.6	968.6	1035.3	1079.3	1116.5	1187.8	1265.9	1329.6	1394.1
25°	769.1	825.2	889.0	954.2	1035.3	1068.7	1109.7	1192.4	1275.0	1348.6	1428.2
27.5°	746.4	803.2	866.2	933.0	1007.3	1056.6	1096.8	1185.5	1286.4	1365.3	1447.2
30°	723.6	782.0	842.7	902.6	986.0	1033.1	1079.3	1177.2	1292.5	1382.7	1445.7
32.5°	701.6	750.9	810.8	869.2	951.9	1003.5	1055.8	1168.8	1294.8	1370.6	1400.9
35°	671.3	722.8	771.4	833.6	917.0	967.8	1029.3	1168.1	1284.9	1331.9	1316.8
37.5°	643.2	686.4	732.7	788.1	873.8	939.8	1003.5	1148.4	1252.3	1255.3	1169.6
40°	612.1	647.8	686.4	744.8	837.4	902.6	971.6	1118.0	1193.1	1148.4	997.4
42.5°	576.5	608.3	638.7	695.5	796.4	869.2	943.6	1080.1	1107.4	1004.2	847.2
45°	538.5	564.3	592.4	652.3	753.2	825.2	899.6	1021.7	993.6	848.0	698.6
47.5°	499.1	521.1	548.4	603.0	706.9	780.5	851.0	938.3	867.0	710.7	585.6
50°	459.6	477.1	503.6	559.8	659.9	726.6	791.9	848.8	748.6	609.8	483.9
52.5°	421.0	434.6	461.9	509.7	606.8	670.5	717.5	739.5	637.9	503.6	420.2
55°	380.0	395.2	413.4	461.9	558.3	605.3	636.4	635.6	530.9	427.0	347.4
57.5°	340.6	354.2	370.1	418.7	496.8	528.7	555.2	542.3	443.0	349.7	298.1
60°	305.7	313.3	330.7	371.7	430.8	458.1	473.3	451.3	361.8	295.1	246.5
62.5°	267.7	275.3	289.7	328.4	364.8	379.2	392.1	364.1	298.8	240.4	210.9
65°	232.9	242.7	251.8	282.9	302.6	320.1	318.6	295.1	233.6	195.7	171.4
67.5°	202.5	206.3	213.9	232.9	242.0	254.9	255.6	229.1	188.1	159.3	144.9
70°	169.9	173.7	179.0	188.1	194.2	197.2	195.7	172.2	141.8	124.4	111.5
72.5°	141.8	141.1	144.9	144.9	150.9	150.2	145.6	127.4	107.7	93.3	85.7
75°	111.5	112.3	113.0	111.5	109.2	106.2	102.4	88.7	75.8	69.0	62.2
77.5°	87.2	85.7	86.5	81.2	78.1	75.1	69.8	63.0	52.3	50.8	47.8
80°	62.2	61.4	60.7	58.4	51.6	48.5	44.8	41.0	38.7	37.2	36.4
82.5°	41.7	41.7	40.2	35.6	31.9	29.6	28.8	27.3	25.0	25.0	24.3
85°	25.0	24.3	22.8	18.2	15.9	15.9	15.9	15.9	14.4	14.4	13.7
87.5°	9.9	9.1	6.8	6.8	6.1	6.1	6.1	5.3	5.3	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	935.2	935.2	942.1	948.9	945.1	947.4	955.7	952.7	958.7	958.0	960.3
5°	1005.8	1014.1	1020.9	1035.3	1037.6	1035.3	1049.8	1053.6	1060.4	1052.0	1055.8
7.5°	1085.4	1102.9	1119.5	1140.8	1147.6	1149.1	1156.7	1167.3	1176.4	1159.7	1168.1
10°	1162.8	1189.3	1223.5	1242.4	1259.1	1265.2	1271.2	1278.1	1288.7	1298.5	1291.0
12.5°	1246.2	1284.9	1317.5	1351.6	1372.1	1369.8	1387.3	1391.8	1400.2	1402.5	1405.5
15°	1314.5	1369.1	1389.6	1440.4	1444.9	1460.1	1479.8	1497.3	1499.5	1495.0	1495.0
17.5°	1379.7	1426.7	1463.1	1504.1	1512.4	1525.3	1550.4	1558.7	1561.7	1561.0	1561.0
20°	1432.8	1463.9	1525.3	1559.5	1573.1	1589.8	1607.3	1617.9	1620.1	1623.2	1618.6
22.5°	1467.7	1514.7	1564.8	1592.8	1604.2	1610.3	1621.7	1624.7	1620.9	1621.7	1622.4
25°	1495.0	1541.3	1571.6	1579.2	1578.4	1570.8	1562.5	1548.1	1546.6	1540.5	1528.4
27.5°	1502.6	1520.0	1516.2	1485.1	1454.0	1451.0	1400.9	1373.6	1342.5	1347.1	1329.6
30°	1461.6	1438.9	1385.0	1306.1	1273.5	1220.4	1164.3	1105.9	1083.1	1058.1	1104.4
32.5°	1361.5	1280.3	1184.8	1082.4	1027.8	980.7	920.8	878.3	854.1	833.6	873.0
35°	1210.6	1083.9	957.2	860.1	815.4	772.9	716.8	695.5	665.2	668.2	672.0
37.5°	1016.4	876.8	781.3	685.7	656.1	638.7	597.7	565.1	554.5	551.4	551.4
40°	834.3	719.8	634.9	559.8	537.0	522.6	490.0	474.8	463.4	460.4	464.2
42.5°	690.2	592.4	526.4	476.3	460.4	442.2	428.6	409.6	407.3	402.0	408.8
45°	579.5	494.5	445.2	408.8	395.2	388.4	373.2	361.8	357.3	356.5	361.8
47.5°	491.5	425.5	382.3	359.5	348.9	342.1	329.2	324.6	320.1	321.6	319.3
50°	412.6	363.3	335.3	314.8	307.9	301.1	292.8	288.2	286.0	286.0	285.2
52.5°	354.2	313.3	295.1	276.1	273.1	269.3	260.2	257.1	253.3	252.6	255.6
55°	303.4	275.3	257.1	245.8	242.7	235.1	231.3	227.5	225.3	223.8	224.5
57.5°	259.4	238.2	226.0	216.2	210.9	207.8	201.0	200.2	198.7	198.7	198.0
60°	223.0	207.8	193.4	187.3	183.6	179.8	179.0	174.5	172.2	173.7	172.9
62.5°	188.9	176.7	168.4	161.6	159.3	156.3	154.0	152.5	150.2	150.9	150.9
65°	157.8	147.9	141.8	135.8	135.0	132.0	131.2	129.7	129.7	128.9	130.5
67.5°	129.7	122.9	117.6	113.8	111.5	112.3	109.2	106.9	106.9	106.2	108.5
70°	103.2	99.4	94.1	89.5	86.5	86.5	82.7	81.9	81.9	81.9	81.2
72.5°	79.6	72.8	70.5	69.0	69.0	69.0	67.5	67.5	66.7	67.5	66.7
75°	59.2	58.4	56.9	56.1	56.1	55.4	54.6	54.6	54.6	54.6	54.6
77.5°	46.3	46.3	44.8	44.0	44.0	44.0	43.2	43.2	42.5	42.5	42.5
80°	34.1	34.1	32.6	32.6	32.6	31.9	31.9	31.9	32.6	31.9	31.9
82.5°	23.5	23.5	22.8	23.5	22.8	22.0	22.0	22.0	21.2	22.0	22.0
85°	13.7	13.7	12.9	12.1	12.9	12.9	12.1	12.9	12.1	12.9	12.1
87.5°	5.3	4.6	4.6	4.6	3.8	4.6	3.8	3.8	4.6	3.8	4.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	956.5	951.9	948.9	946.6	944.3	951.2	942.1	932.2	925.4	920.8	919.3
5°	1056.6	1046.7	1038.4	1031.6	1033.1	1033.1	1017.1	999.7	984.5	976.2	967.1
7.5°	1172.6	1162.0	1145.3	1141.5	1138.5	1119.5	1103.6	1071.8	1052.8	1033.8	1017.1
10°	1287.9	1274.3	1258.3	1253.0	1245.5	1221.9	1197.7	1156.7	1133.2	1098.3	1076.3
12.5°	1395.6	1378.9	1363.0	1359.2	1347.8	1327.4	1285.7	1243.2	1203.0	1165.8	1127.1
15°	1485.9	1481.3	1457.1	1441.9	1416.9	1388.8	1379.7	1322.1	1271.2	1232.6	1162.8
17.5°	1561.7	1540.5	1517.8	1507.9	1498.0	1465.4	1432.8	1373.6	1319.0	1262.1	1217.4
20°	1622.4	1598.9	1583.0	1568.6	1564.0	1526.9	1475.3	1422.9	1363.0	1299.3	1240.9
22.5°	1625.5	1622.4	1611.8	1603.5	1594.4	1570.1	1529.1	1463.9	1400.2	1330.4	1253.8
25°	1562.5	1558.0	1588.3	1580.7	1586.8	1577.7	1555.7	1501.1	1426.7	1344.8	1267.4
27.5°	1372.9	1419.1	1466.9	1483.6	1495.0	1527.6	1538.2	1507.9	1448.0	1360.7	1274.3
30°	1115.0	1176.4	1253.8	1295.5	1327.4	1388.0	1466.9	1476.8	1448.7	1378.9	1272.8
32.5°	875.3	931.4	993.6	1042.9	1085.4	1209.8	1316.0	1392.6	1406.3	1369.8	1276.5
35°	705.4	729.7	788.8	835.9	893.5	999.7	1124.9	1248.5	1331.9	1336.5	1265.2
37.5°	581.8	594.7	646.2	672.8	706.9	800.2	917.0	1078.6	1208.3	1269.7	1233.3
40°	481.6	511.2	540.8	556.0	580.2	644.7	757.0	883.6	1044.4	1158.2	1184.0
42.5°	417.9	430.8	449.8	471.0	486.2	542.3	617.4	733.5	878.3	1036.9	1108.2
45°	368.6	373.2	392.9	406.6	422.5	461.9	515.0	612.1	739.5	895.8	1017.1
47.5°	327.7	336.8	347.4	355.7	366.4	396.7	442.2	512.7	625.0	764.6	895.0
50°	291.3	296.6	310.2	314.0	321.6	342.8	377.7	431.6	524.1	635.6	770.6
52.5°	257.1	267.0	272.3	277.6	284.4	301.9	324.6	368.6	438.4	543.1	657.6
55°	230.6	233.6	241.2	245.8	251.1	263.2	282.9	315.5	370.1	453.6	562.0
57.5°	204.8	204.8	212.4	216.2	221.5	230.6	248.0	273.1	312.5	374.7	474.1
60°	177.5	178.2	184.3	188.9	190.4	199.5	213.9	233.6	264.0	309.5	390.6
62.5°	153.2	157.0	160.0	161.6	166.9	172.2	184.3	198.0	219.2	259.4	317.1
65°	132.7	133.5	135.8	137.3	139.6	145.6	154.7	163.8	182.0	211.6	258.6
67.5°	109.2	112.3	115.3	115.3	117.6	120.6	129.7	137.3	150.9	168.4	200.2
70°	81.9	83.4	88.0	90.3	93.3	98.6	103.2	107.7	118.3	131.2	155.5
72.5°	68.3	68.3	69.8	70.5	70.5	74.3	81.2	85.7	91.0	100.1	116.8
75°	54.6	54.6	56.9	56.1	57.6	59.2	59.9	63.0	66.0	72.8	82.7
77.5°	43.2	44.0	44.0	44.8	44.8	45.5	46.3	47.8	49.3	53.1	57.6
80°	31.9	32.6	32.6	33.4	33.4	34.1	34.9	35.6	37.2	38.7	41.0
82.5°	22.0	22.8	22.8	23.5	22.8	23.5	24.3	24.3	25.0	26.5	27.3
85°	12.9	12.9	13.7	12.9	12.9	12.9	13.7	13.7	14.4	16.7	16.7
87.5°	3.8	4.6	3.8	4.6	4.6	4.6	4.6	5.3	5.3	6.1	6.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P994984

CATALOG NUMBER: S123RDR-B560DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	917.0	913.2	909.4	909.4	901.1	893.5	889.7	891.2	886.7	880.6	874.5
5°	957.2	942.1	939.0	930.7	919.3	903.4	895.0	887.4	878.3	866.2	854.8
7.5°	994.4	974.7	964.0	955.7	933.7	911.7	893.5	881.4	865.4	847.2	833.6
10°	1042.9	1006.5	995.1	976.2	945.1	914.0	892.8	873.0	851.0	829.8	811.6
12.5°	1081.6	1039.9	1018.7	999.7	959.5	920.1	884.4	860.1	833.6	810.1	786.6
15°	1125.6	1078.6	1041.4	1018.7	967.8	920.1	879.9	845.7	816.1	787.3	766.8
17.5°	1146.8	1087.7	1071.0	1038.4	964.8	917.0	867.7	831.3	795.7	762.3	738.0
20°	1180.2	1111.2	1069.5	1047.5	982.3	911.7	854.1	812.3	775.2	739.5	713.7
22.5°	1182.5	1107.4	1080.1	1038.4	958.0	895.8	841.9	791.1	747.9	714.5	688.0
25°	1177.2	1100.6	1062.7	1029.3	962.5	886.7	817.7	767.6	725.1	686.4	655.3
27.5°	1174.9	1080.9	1045.2	1011.8	936.7	860.1	803.2	746.4	697.8	663.7	631.8
30°	1171.9	1059.6	1016.4	977.7	908.7	839.7	771.4	722.1	675.8	632.6	600.7
32.5°	1152.2	1030.8	986.8	945.8	871.5	802.5	748.6	696.3	646.2	606.0	577.2
35°	1146.1	1004.2	946.6	902.6	829.8	768.4	711.5	668.2	621.2	581.0	546.9
37.5°	1128.6	976.9	914.7	858.6	782.8	724.4	682.6	639.4	593.9	550.7	523.4
40°	1098.3	945.1	874.5	816.9	738.8	679.6	640.9	609.1	564.3	525.6	492.3
42.5°	1053.6	912.5	836.6	775.9	689.5	634.1	602.2	571.9	534.0	493.8	466.5
45°	1002.0	869.2	798.7	731.2	643.2	589.4	556.0	537.8	502.9	468.8	436.9
47.5°	931.4	824.5	754.7	684.9	595.4	543.1	516.5	498.3	474.1	436.9	411.1
50°	842.7	766.8	700.9	638.7	548.4	498.3	471.8	458.1	437.7	411.1	386.1
52.5°	744.1	700.1	645.5	587.8	500.6	453.6	429.3	418.7	403.5	378.5	357.3
55°	644.7	625.8	588.6	531.7	450.5	411.9	390.6	377.0	365.6	347.4	329.2
57.5°	556.0	546.9	521.1	477.1	408.8	368.6	350.4	341.3	332.2	318.6	300.4
60°	464.2	474.1	447.5	425.5	363.3	328.4	312.5	302.6	298.1	286.0	274.6
62.5°	384.6	393.7	378.5	361.8	317.8	286.7	276.9	267.7	264.7	254.1	242.7
65°	312.5	323.9	312.5	303.4	276.9	251.1	238.9	234.4	231.3	224.5	215.4
67.5°	248.8	260.2	254.9	243.5	235.1	213.9	207.1	202.5	201.0	195.7	188.1
70°	187.3	203.3	204.8	198.0	190.4	180.5	176.0	174.5	170.7	166.1	161.6
72.5°	135.0	153.2	154.0	154.0	149.4	149.4	144.9	142.6	142.6	138.0	132.7
75°	99.4	111.5	113.0	114.5	116.8	119.1	116.0	116.0	115.3	110.7	108.5
77.5°	66.0	76.6	80.4	85.7	88.7	88.7	90.3	91.8	90.3	88.0	86.5
80°	42.5	50.1	54.6	57.6	62.2	64.5	66.7	67.5	66.0	65.2	63.0
82.5°	28.1	30.3	32.6	36.4	41.7	45.5	45.5	44.8	46.3	45.5	44.8
85°	15.9	17.4	18.2	19.0	22.0	25.8	26.5	27.3	28.8	27.3	25.8
87.5°	6.1	6.8	6.8	6.8	8.3	9.1	11.4	14.4	13.7	12.1	12.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P994984

CATALOG NUMBER: S123RDR-B560DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	874.5	870.8	869.2	865.4	856.3	850.3	843.4	838.9	839.7	835.9	838.1
5°	847.2	846.5	841.2	833.6	820.7	813.9	801.7	795.7	792.6	793.4	788.8
7.5°	824.5	817.7	813.9	801.7	789.6	775.2	765.3	760.0	755.5	750.9	747.9
10°	798.7	792.6	786.6	773.7	757.0	743.3	729.7	724.4	717.5	714.5	712.2
12.5°	771.4	767.6	760.0	744.8	725.9	713.0	697.1	694.0	684.9	678.9	677.3
15°	746.4	744.1	730.4	713.0	694.0	681.1	667.5	658.4	643.2	646.2	640.9
17.5°	719.8	710.0	701.6	678.1	669.0	649.3	633.3	628.8	618.2	611.3	604.5
20°	690.2	684.2	673.5	658.4	636.4	613.6	601.5	593.9	587.8	577.2	574.2
22.5°	662.2	654.6	645.5	625.8	606.8	587.8	571.1	564.3	556.7	549.2	544.6
25°	640.2	628.8	618.9	594.7	575.7	559.8	549.2	537.8	527.2	522.6	521.1
27.5°	606.0	599.2	589.4	566.6	549.2	531.7	521.8	514.3	502.9	497.6	493.0
30°	584.0	570.4	559.0	540.8	523.4	504.4	495.3	486.2	479.4	472.5	467.2
32.5°	554.5	543.8	534.7	516.5	499.1	481.6	471.8	458.1	454.3	449.0	443.0
35°	525.6	518.8	509.0	489.2	470.3	458.1	447.5	434.6	430.1	426.3	421.0
37.5°	498.3	488.5	481.6	462.7	446.0	431.6	423.2	412.6	409.6	405.0	401.2
40°	474.8	465.0	458.1	439.2	421.7	406.6	401.2	390.6	386.1	380.8	378.5
42.5°	448.3	439.9	430.8	417.2	399.0	383.8	373.2	367.1	361.0	358.8	354.2
45°	420.2	412.6	405.8	390.6	371.7	361.0	351.9	343.6	339.0	335.3	332.2
47.5°	395.9	389.1	380.0	363.3	348.1	338.3	329.2	320.8	316.3	311.7	307.9
50°	367.9	364.1	354.2	338.3	323.9	312.5	304.2	296.6	293.5	288.2	282.2
52.5°	342.8	336.0	327.7	314.8	301.9	288.2	276.9	272.3	267.0	264.0	258.6
55°	313.3	308.7	299.6	288.2	274.6	263.2	254.9	248.8	242.0	238.9	232.1
57.5°	288.2	279.9	275.3	260.9	248.0	236.7	230.6	224.5	216.9	212.4	209.3
60°	260.9	253.3	246.5	234.4	225.3	213.1	204.0	198.7	193.4	187.3	184.3
62.5°	234.4	228.3	220.0	210.1	198.7	188.9	182.0	174.5	171.4	165.4	163.1
65°	205.6	201.0	194.2	182.8	173.7	165.4	158.5	152.5	149.4	147.1	145.6
67.5°	179.8	173.7	169.1	159.3	149.4	142.6	138.8	135.0	131.2	128.9	126.7
70°	153.2	148.7	144.1	135.0	128.2	122.1	119.1	116.0	113.8	111.5	109.2
72.5°	125.9	123.6	119.1	113.0	107.7	103.2	100.9	97.1	94.8	91.0	89.5
75°	103.9	100.1	97.8	92.5	88.0	84.2	81.2	76.6	73.6	72.1	71.3
77.5°	81.9	80.4	77.4	72.8	70.5	66.7	62.2	60.7	59.2	59.2	58.4
80°	61.4	59.2	56.9	53.1	50.8	47.8	47.8	47.8	47.0	47.8	47.0
82.5°	41.7	40.2	38.7	36.4	35.6	35.6	36.4	36.4	36.4	36.4	36.4
85°	24.3	24.3	24.3	25.0	24.3	24.3	25.0	25.8	25.0	25.0	24.3
87.5°	11.4	11.4	12.1	12.1	12.9	12.9	12.9	12.9	12.9	12.9	13.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P994984

CATALOG NUMBER: S123RDR-B560DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	837.4	838.1	835.9	831.3	830.6	832.1	836.6	835.1	831.3	838.1	832.1
5°	791.1	787.3	785.8	787.3	782.8	780.5	785.0	782.8	785.0	785.8	788.1
7.5°	746.4	747.1	742.6	743.3	737.3	738.8	738.8	738.8	741.1	742.6	745.6
10°	707.7	709.2	703.9	704.6	700.1	697.1	699.3	703.9	703.9	703.9	705.4
12.5°	676.6	669.8	666.0	665.2	659.9	658.4	662.9	664.4	668.2	668.2	670.5
15°	637.9	636.4	633.3	633.3	620.5	623.5	625.0	630.3	637.9	631.8	633.3
17.5°	603.0	599.2	595.4	593.9	592.4	587.8	593.9	593.1	597.7	598.5	600.7
20°	571.9	568.9	561.3	562.0	563.6	556.7	560.5	560.5	565.1	569.6	574.9
22.5°	541.6	538.5	534.7	536.3	531.7	530.2	530.2	534.0	539.3	543.1	542.3
25°	518.1	512.7	510.5	508.2	505.9	507.4	505.2	509.0	512.7	515.0	512.7
27.5°	491.5	489.2	484.7	482.4	478.6	480.1	481.6	484.7	487.0	487.0	489.2
30°	465.7	462.7	461.2	458.9	458.9	455.9	456.6	459.6	461.9	464.2	467.2
32.5°	440.7	438.4	436.1	436.1	434.6	433.9	433.1	437.7	437.7	442.2	442.2
35°	420.2	416.4	416.4	412.6	414.1	413.4	411.9	414.9	415.7	418.7	417.9
37.5°	397.5	397.5	395.9	392.1	389.1	389.9	393.7	393.7	395.9	395.2	397.5
40°	374.7	373.2	373.2	370.9	370.1	369.4	370.1	370.9	374.7	373.9	374.7
42.5°	351.9	352.7	348.9	348.9	348.9	346.6	347.4	348.1	349.7	351.2	353.5
45°	329.9	328.4	327.7	326.2	324.6	325.4	324.6	327.7	326.9	328.4	330.7
47.5°	306.4	304.2	303.4	300.4	300.4	301.9	301.1	303.4	304.2	306.4	304.9
50°	283.7	280.6	278.4	279.1	274.6	276.1	276.1	278.4	280.6	281.4	282.9
52.5°	257.1	256.4	255.6	251.8	251.1	250.3	251.1	251.8	254.9	257.1	257.9
55°	231.3	230.6	226.0	224.5	222.2	222.2	223.8	224.5	229.8	230.6	233.6
57.5°	207.8	205.6	200.2	199.5	199.5	199.5	197.2	200.2	201.8	205.6	205.6
60°	182.0	182.0	177.5	177.5	178.2	177.5	177.5	178.2	178.2	181.3	182.8
62.5°	161.6	160.8	160.8	159.3	158.5	159.3	158.5	158.5	159.3	161.6	163.8
65°	143.4	142.6	141.8	141.1	139.6	139.6	140.3	141.8	141.8	143.4	144.1
67.5°	125.9	125.9	124.4	124.4	123.6	122.9	123.6	122.9	125.9	125.9	126.7
70°	108.5	107.7	105.4	104.7	102.4	103.2	103.2	105.4	106.2	107.7	109.2
72.5°	87.2	87.2	85.7	84.2	85.0	83.4	83.4	84.2	84.2	86.5	87.2
75°	72.1	70.5	69.8	70.5	69.8	71.3	69.8	69.8	71.3	71.3	71.3
77.5°	59.2	59.2	58.4	58.4	59.2	58.4	59.2	59.2	59.2	58.4	59.2
80°	48.5	47.8	47.8	47.8	47.0	47.0	47.0	47.0	47.0	47.0	47.0
82.5°	36.4	36.4	35.6	36.4	36.4	35.6	36.4	35.6	35.6	36.4	36.4
85°	24.3	25.8	24.3	24.3	25.0	25.0	25.8	25.0	25.8	24.3	25.0
87.5°	12.9	13.7	13.7	12.9	12.9	13.7	13.7	13.7	14.4	12.9	13.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P994984

CATALOG NUMBER: S123RDR-B560DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	838.1	841.2	838.1	832.1	838.1	841.9	845.7	851.8	854.8	854.8	859.4
5°	790.4	796.4	794.1	792.6	798.7	802.5	808.6	816.1	824.5	829.8	835.9
7.5°	747.9	751.7	755.5	755.5	761.5	769.9	779.0	788.1	798.7	806.3	810.8
10°	710.7	713.7	716.0	719.1	728.2	737.3	749.4	760.8	769.9	778.2	785.8
12.5°	675.1	679.6	684.9	687.2	694.0	705.4	716.8	730.4	744.8	753.2	760.8
15°	640.9	643.2	649.3	656.1	662.2	674.3	688.7	703.1	715.3	728.2	735.0
17.5°	606.0	606.8	622.7	618.9	638.7	650.0	657.6	671.3	691.0	701.6	712.2
20°	571.9	579.5	586.3	590.1	600.7	613.6	635.6	646.2	662.2	672.0	681.1
22.5°	545.4	556.7	556.7	565.8	571.1	583.3	599.2	619.7	637.1	644.0	656.9
25°	521.8	527.2	536.3	539.3	549.2	559.8	570.4	592.4	611.3	620.5	629.6
27.5°	491.5	498.3	510.5	510.5	523.4	534.7	547.6	562.0	581.0	593.9	603.8
30°	468.0	474.8	480.1	488.5	493.8	504.4	527.2	537.8	554.5	565.8	578.0
32.5°	446.0	451.3	455.9	465.0	471.0	483.2	495.3	514.3	528.7	539.3	552.2
35°	421.7	427.0	433.1	439.9	449.0	460.4	471.8	487.7	502.1	512.0	522.6
37.5°	399.0	402.8	411.9	416.4	424.0	434.6	449.0	465.7	478.6	486.2	496.8
40°	377.0	380.0	386.8	395.2	400.5	408.8	424.0	438.4	454.3	463.4	471.8
42.5°	353.5	357.3	363.3	371.7	380.0	389.1	397.5	414.1	428.6	436.1	445.2
45°	333.0	335.3	339.8	348.1	356.5	363.3	376.2	391.4	405.0	411.1	421.0
47.5°	308.7	311.0	317.8	321.6	330.7	339.8	352.7	367.9	380.0	386.1	395.2
50°	283.7	286.0	290.5	298.8	304.9	314.8	326.2	339.0	354.2	362.6	367.9
52.5°	259.4	264.0	267.7	274.6	282.2	292.0	302.6	314.8	327.7	336.0	342.1
55°	235.1	238.9	243.5	247.3	256.4	265.5	277.6	289.0	300.4	307.9	314.8
57.5°	207.8	213.1	217.7	225.3	232.1	239.7	253.3	262.4	276.1	281.4	287.5
60°	184.3	189.6	193.4	199.5	205.6	215.4	224.5	235.9	247.3	254.1	261.7
62.5°	164.6	166.9	169.1	175.2	181.3	190.4	199.5	210.9	223.0	226.8	232.9
65°	144.9	147.1	150.9	156.3	160.8	166.1	176.0	185.1	196.5	202.5	204.8
67.5°	128.2	130.5	131.2	135.0	138.8	144.9	150.2	159.3	169.9	173.7	178.2
70°	109.2	113.0	113.8	116.8	118.3	122.1	128.2	135.0	143.4	150.2	154.0
72.5°	87.2	92.5	94.1	98.6	100.9	104.7	109.2	114.5	119.8	122.9	125.9
75°	71.3	72.8	73.6	77.4	81.2	86.5	88.7	91.8	96.3	100.1	103.2
77.5°	59.2	59.9	60.7	60.7	61.4	64.5	69.0	72.8	75.8	77.4	79.6
80°	47.8	47.0	47.0	47.8	47.8	47.8	49.3	54.6	56.1	59.9	59.2
82.5°	37.2	35.6	36.4	35.6	35.6	35.6	35.6	36.4	36.4	38.7	40.2
85°	24.3	25.0	24.3	24.3	23.5	24.3	23.5	23.5	22.8	22.8	22.0
87.5°	12.9	13.7	12.9	12.9	12.1	12.9	12.1	12.1	11.4	11.4	9.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P994984

CATALOG NUMBER: S123RDR-B560DB2750-4F0-XX-W2A-A_4000K

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	885.9	885.9	885.9	885.9
2.5°	863.2	868.5	879.1	888.2
5°	845.0	853.3	869.2	885.2
7.5°	823.0	835.9	856.3	878.3
10°	801.7	818.4	843.4	869.2
12.5°	780.5	797.9	824.5	857.9
15°	755.5	773.7	805.5	845.7
17.5°	733.5	757.7	786.6	826.8
20°	710.0	728.2	765.3	807.8
22.5°	680.4	710.7	745.6	790.4
25°	656.9	683.4	718.3	769.1
27.5°	628.0	659.1	701.6	746.4
30°	604.5	630.3	669.8	723.6
32.5°	577.2	607.6	648.5	701.6
35°	552.9	578.7	617.4	671.3
37.5°	524.1	552.2	595.4	643.2
40°	499.1	526.4	567.4	612.1
42.5°	468.8	497.6	538.5	576.5
45°	444.5	471.0	503.6	538.5
47.5°	414.9	443.0	474.8	499.1
50°	388.4	414.1	439.2	459.6
52.5°	359.5	383.0	405.8	421.0
55°	333.0	351.2	369.4	380.0
57.5°	301.9	319.3	334.5	340.6
60°	274.6	289.0	298.8	305.7
62.5°	245.8	256.4	264.0	267.7
65°	217.7	225.3	229.1	232.9
67.5°	188.9	195.7	198.0	202.5
70°	158.5	166.1	167.6	169.9
72.5°	135.8	135.8	138.8	141.8
75°	108.5	110.0	111.5	111.5
77.5°	85.0	85.0	86.5	87.2
80°	62.2	63.0	63.0	62.2
82.5°	42.5	44.0	42.5	41.7
85°	23.5	26.5	25.0	25.0
87.5°	9.9	9.9	11.4	9.9
90°	0.0	0.0	0.0	0.0

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