

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: P333054-927

Luminaire Tested: **S124RDIW-S575D1560U927-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333054-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-S575D1560U927-4F0-1E-UDD-F1  
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6149.7 lumens  
Efficiency: N/A  
Efficacy: 101.5 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

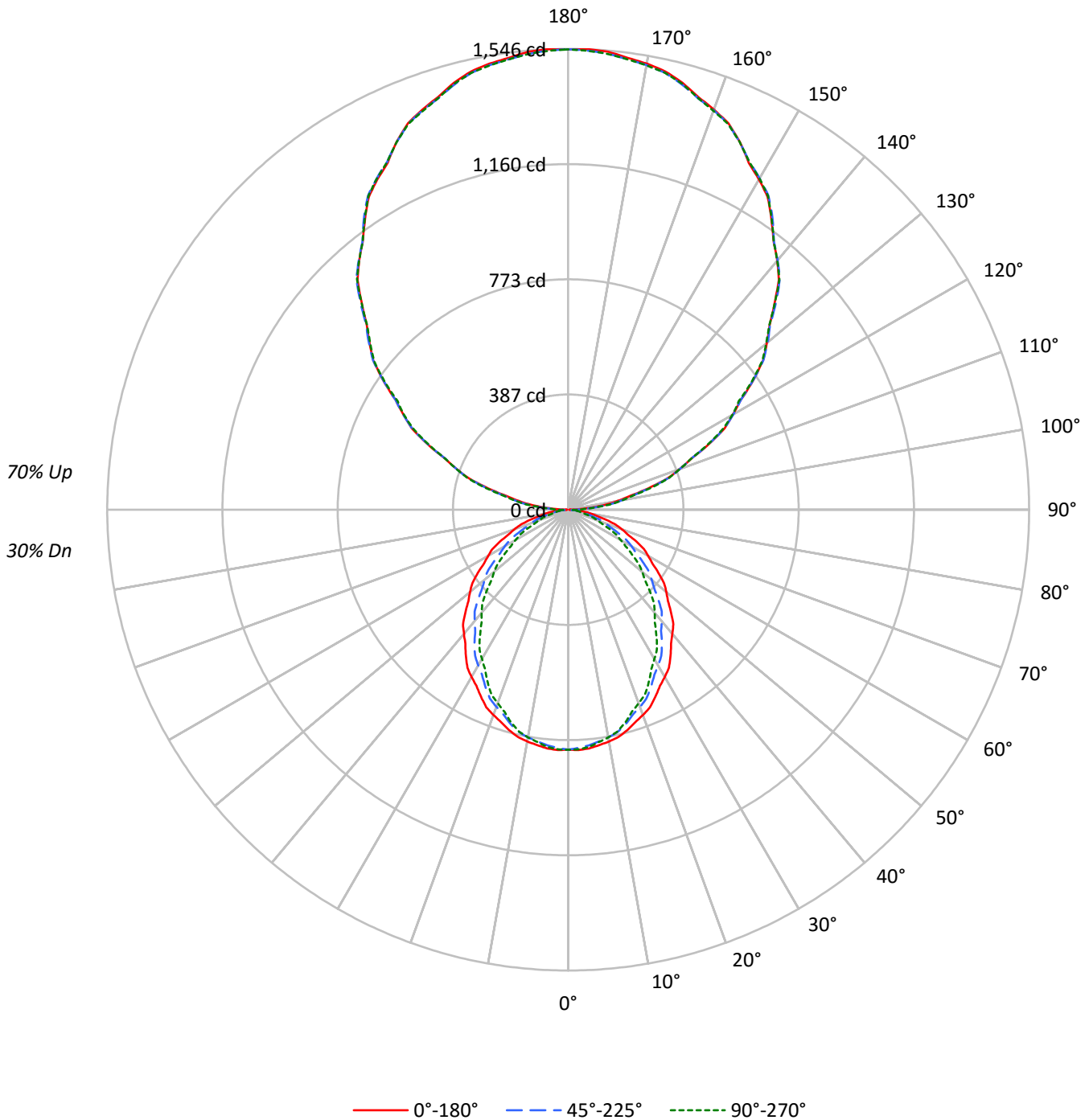
Input Watts (W): 60.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	38	38	38	30
1	94	89	86	82	84	80	77	74	64	61	60	48	47	46	34	33	32	26
2	85	78	72	67	76	70	65	61	56	52	50	42	40	38	30	29	27	22
3	78	69	62	56	70	62	56	51	49	45	42	38	35	32	27	25	24	19
4	71	61	53	48	64	55	49	44	44	39	36	34	30	28	24	22	20	16
5	65	54	46	41	58	49	42	37	39	34	31	30	27	24	22	19	18	14
6	60	48	41	35	54	44	37	32	35	30	27	27	24	21	20	17	16	12
7	55	44	36	31	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	40	32	27	46	36	29	25	29	24	21	23	19	17	16	14	13	10
9	48	36	29	24	43	33	26	22	27	22	18	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	17	19	16	13	14	12	10	8

**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	1.2
10°-20°	210.9	3.4
20°-30°	304.5	5.0
30°-40°	345.2	5.6
40°-50°	333.3	5.4
50°-60°	277.2	4.5
60°-70°	191.4	3.1
70°-80°	97.0	1.6
80°-90°	29.5	0.5
90°-100°	101.9	1.7
100°-110°	301.8	4.9
110°-120°	512.2	8.3
120°-130°	675.4	11.0
130°-140°	758.5	12.3
140°-150°	745.3	12.1
150°-160°	626.9	10.2
160°-170°	417.1	6.8
170°-180°	146.1	2.4
0°-30°	591.0	9.6
0°-40°	936.2	15.2
0°-60°	1546.7	25.2
0°-90°	1864.7	30.3
90°-120°	915.8	14.9
90°-150°	3095.0	50.3
90°-180°	4285.0	69.7
0°-180°	6149.7	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	38
90°	4	17	26	33	36	6
95°	72	82	91	94	94	80
105°	278	280	284	288	291	295
115°	521	521	518	517	516	513
125°	758	758	757	755	752	676
135°	978	985	986	983	980	757
145°	1188	1193	1194	1193	1190	743
155°	1362	1362	1360	1365	1360	626
165°	1482	1479	1476	1483	1479	418
175°	1542	1536	1535	1542	1535	146
180°	1544	1544	1544	1544	1544	



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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°	12.0	11.8	11.5	11.2	10.9	10.9	11.2	11.6	11.9	12.1	12.4
90°	3.6	6.5	9.4	12.4	15.3	17.8	19.9	22.0	24.2	26.3	27.9
92.5°	25.6	28.9	32.2	35.6	39.0	41.4	42.9	44.4	45.8	47.3	48.2
95°	71.7	74.1	76.4	78.8	81.2	83.3	85.2	87.1	89.0	90.8	91.6
97.5°	125.2	127.1	129.0	130.9	132.8	134.9	137.0	139.2	141.4	143.5	144.5
100°	167.2	168.3	169.4	170.4	171.5	173.2	175.6	178.0	180.4	182.8	183.3
102.5°	211.2	211.6	212.1	212.5	212.9	214.2	216.3	218.6	220.7	222.9	223.6
105°	278.3	278.6	278.8	279.1	279.4	280.0	281.1	282.2	283.2	284.3	285.1
107.5°	348.8	349.1	349.4	349.7	350.1	350.3	350.5	350.6	350.8	350.9	351.6
110°	396.6	397.1	397.6	398.2	398.7	398.9	398.5	398.3	398.0	397.8	397.2



TEST NUMBER: P333054-927

CATALOG NUMBER: S124RDIW-S575D1560U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	446.2	446.4	446.5	446.6	446.7	446.5	446.0	445.5	445.0	444.6	444.5
115°	520.8	520.8	520.8	520.8	520.8	520.5	520.0	519.4	519.0	518.4	518.2
117.5°	591.0	591.2	591.4	591.7	591.9	591.8	591.4	591.0	590.7	590.3	589.4
120°	637.9	638.9	640.0	641.0	642.1	642.2	641.4	640.6	639.8	639.1	637.7
122.5°	686.6	687.0	687.5	687.9	688.2	688.3	687.9	687.5	687.2	686.8	686.0
125°	758.5	758.5	758.5	758.5	758.5	758.4	758.1	757.8	757.6	757.3	756.8
127.5°	823.7	824.5	825.3	826.1	826.9	827.1	826.6	826.2	825.9	825.4	824.8
130°	869.6	870.4	871.2	872.0	872.7	873.1	873.1	873.1	873.1	873.1	872.7
132.5°	916.4	917.0	917.6	918.1	918.8	918.9	918.7	918.5	918.3	918.1	917.6
135°	978.3	979.9	981.4	983.1	984.7	985.5	985.5	985.5	985.5	985.5	984.9
137.5°	1045.7	1046.4	1047.1	1047.9	1048.6	1049.2	1049.6	1050.0	1050.5	1050.9	1050.2
140°	1090.6	1091.1	1091.6	1092.2	1092.7	1093.0	1093.0	1093.0	1093.0	1093.0	1092.7
142.5°	1131.6	1132.2	1132.7	1133.2	1133.8	1133.9	1133.7	1133.5	1133.3	1133.1	1133.1
145°	1188.5	1189.5	1190.6	1191.7	1192.8	1193.4	1193.7	1194.0	1194.2	1194.5	1194.2
147.5°	1244.9	1246.2	1247.4	1248.7	1250.0	1250.5	1250.3	1250.1	1249.9	1249.7	1249.4
150°	1279.3	1280.3	1281.4	1282.5	1283.6	1284.0	1284.0	1284.0	1284.0	1284.0	1284.0
152.5°	1311.8	1312.4	1313.0	1313.7	1314.3	1314.8	1314.9	1315.2	1315.4	1315.6	1316.2
155°	1361.7	1361.7	1361.7	1361.7	1361.7	1361.6	1361.3	1361.0	1360.8	1360.5	1361.6
157.5°	1403.7	1403.3	1402.8	1402.3	1401.8	1401.6	1401.5	1401.4	1401.4	1401.4	1402.2
160°	1428.6	1428.3	1428.1	1427.8	1427.5	1427.3	1427.0	1426.7	1426.5	1426.2	1427.0
162.5°	1451.5	1450.9	1450.2	1449.5	1448.7	1448.3	1448.0	1447.8	1447.5	1447.2	1448.7
165°	1482.3	1481.5	1480.7	1480.0	1479.2	1478.5	1478.0	1477.4	1476.9	1476.4	1478.0
167.5°	1506.0	1504.9	1503.8	1502.7	1501.6	1501.0	1501.1	1501.1	1501.2	1501.3	1502.8
170°	1519.4	1518.1	1516.7	1515.4	1514.1	1513.5	1513.8	1514.1	1514.3	1514.6	1516.2
172.5°	1528.9	1527.8	1526.7	1525.6	1524.5	1523.9	1524.0	1524.1	1524.1	1524.2	1526.0
175°	1542.1	1540.7	1539.4	1538.1	1536.8	1536.0	1535.7	1535.4	1535.2	1534.9	1536.8
177.5°	1546.3	1545.3	1544.3	1543.2	1542.1	1541.6	1541.6	1541.6	1541.6	1541.6	1543.1
180°	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4



TEST NUMBER: P333054-927

CATALOG NUMBER: S124RDIW-S575D1560U927-4F0-1E-UDD-F1

**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°	12.6	12.8	13.0	13.2	13.4	13.6	13.9	14.1
90°	29.5	31.1	32.6	33.7	34.2	34.8	35.3	35.8
92.5°	49.2	50.1	51.1	51.7	52.0	52.4	52.7	53.0
95°	92.4	93.2	94.0	94.3	94.3	94.3	94.3	94.3
97.5°	145.5	146.5	147.4	147.9	147.9	147.9	147.9	147.9
100°	183.8	184.3	184.9	185.1	185.1	185.1	185.1	185.1
102.5°	224.3	225.1	225.9	226.3	226.6	226.8	227.0	227.2
105°	285.9	286.7	287.5	288.3	289.1	289.9	290.7	291.4
107.5°	352.4	353.2	353.9	354.3	354.2	354.2	354.1	354.0
110°	396.7	396.2	395.6	395.8	396.6	397.4	398.2	398.9





TEST NUMBER: P333054-927

CATALOG NUMBER: S124RDIW-S575D1560U927-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	444.3	444.3	444.2	444.2	444.3	444.5	444.7	444.8
115°	517.8	517.6	517.4	517.1	516.8	516.6	516.3	516.0
117.5°	588.5	587.6	586.7	586.0	585.4	584.9	584.4	583.8
120°	636.4	635.1	633.7	633.3	633.9	634.4	634.9	635.5
122.5°	685.0	684.1	683.3	682.3	681.4	680.4	679.5	678.5
125°	756.2	755.7	755.2	754.6	754.1	753.6	753.0	752.5
127.5°	824.3	823.8	823.2	822.8	822.4	822.0	821.5	821.1
130°	872.1	871.6	871.0	870.2	869.2	868.2	867.0	866.0
132.5°	917.0	916.5	915.9	915.4	915.0	914.7	914.2	913.8
135°	984.4	983.9	983.3	982.6	981.8	981.0	980.2	979.5
137.5°	1049.6	1048.8	1048.1	1047.9	1048.1	1048.2	1048.4	1048.5
140°	1092.4	1092.2	1091.9	1091.6	1091.4	1091.1	1090.8	1090.6
142.5°	1133.0	1132.9	1132.9	1132.8	1132.7	1132.7	1132.7	1132.6
145°	1194.0	1193.7	1193.4	1192.9	1192.1	1191.3	1190.5	1189.7
147.5°	1249.3	1249.0	1248.8	1248.6	1248.3	1248.1	1247.8	1247.5
150°	1284.0	1284.0	1284.0	1284.0	1283.7	1283.4	1283.2	1282.9
152.5°	1316.8	1317.5	1318.1	1318.1	1317.4	1316.8	1316.1	1315.3
155°	1362.6	1363.7	1364.8	1364.8	1363.7	1362.6	1361.6	1360.5
157.5°	1403.0	1403.7	1404.5	1404.5	1403.6	1402.7	1401.8	1400.9
160°	1427.8	1428.6	1429.4	1429.1	1427.8	1426.5	1425.1	1423.8
162.5°	1450.1	1451.5	1452.9	1453.0	1451.7	1450.4	1449.1	1447.7
165°	1479.6	1481.1	1482.7	1483.0	1481.9	1480.9	1479.8	1478.8
167.5°	1504.4	1506.0	1507.6	1507.6	1505.9	1504.3	1502.6	1500.9
170°	1517.8	1519.4	1521.0	1520.8	1519.0	1517.1	1515.3	1513.4
172.5°	1527.8	1529.5	1531.4	1531.4	1529.5	1527.6	1525.7	1523.9
175°	1538.7	1540.5	1542.4	1542.4	1540.5	1538.7	1536.8	1534.9
177.5°	1544.6	1546.0	1547.5	1547.4	1545.7	1544.0	1542.4	1540.6
180°	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4	1544.4

(END OF REPORT)