

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: P332850-927

Luminaire Tested: **S124DIW-S1195D1050U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332850-927
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: S124DIW-S1195D1050U927-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1195 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6732.7 lumens
Efficiency: N/A
Efficacy: 99.9 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: General Diffuse

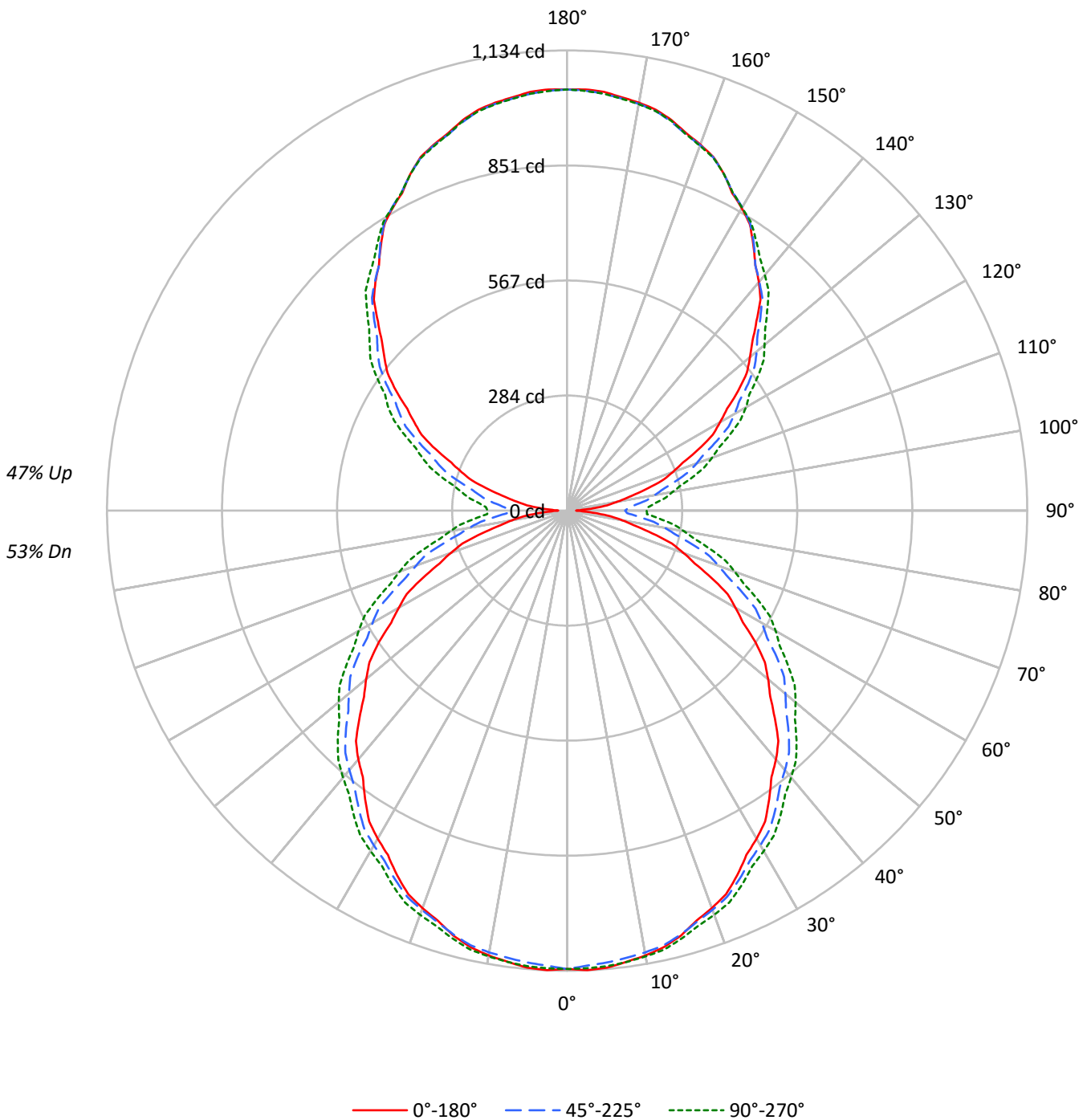
Input Watts (W): 67.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332850-927

CATALOG NUMBER: S124DIW-S1195D1050U927-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332850-927

CATALOG NUMBER: S124DIW-S1195D1050U927-4F0-1E-UDD-D1

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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	97	93	88	84	90	86	82	79	73	70	68	61	59	57	50	49	48	42
2	88	80	74	68	81	74	68	64	63	59	55	53	50	47	44	41	39	35
3	80	70	62	56	74	65	58	53	55	50	46	46	43	39	38	35	33	29
4	73	62	53	47	67	57	50	44	49	43	39	41	37	33	34	31	28	24
5	67	55	46	40	62	51	43	38	44	38	33	37	32	29	30	27	24	21
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	28	24	21	18
7	57	44	36	30	52	41	34	29	36	30	25	30	25	22	25	21	19	16
8	53	40	32	27	49	37	30	25	32	26	22	28	23	19	23	19	17	14
9	49	37	29	24	45	34	27	22	30	24	20	25	21	17	21	18	15	13
10	46	34	26	21	42	31	25	20	27	22	18	23	19	16	20	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9120	9120	9120
5°	9147	8912	8938
10°	9092	8767	8760
15°	9010	8598	8551
20°	8888	8412	8347
25°	8749	8203	8124
30°	8599	7995	7894
35°	8429	7783	7692
40°	8293	7580	7482
45°	8093	7394	7302
50°	7922	7178	7111
55°	7746	6976	6888
60°	7471	6718	6685
65°	7170	6440	6434
70°	6805	6123	6141
75°	6298	5775	5878
80°	5734	5442	5618
85°	5012	5144	5468



TEST NUMBER: P332850-927

CATALOG NUMBER: S124DIW-S1195D1050U927-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	1.6
10°-20°	306.5	4.6
20°-30°	463.4	6.9
30°-40°	560.7	8.3
40°-50°	592.8	8.8
50°-60°	557.9	8.3
60°-70°	462.9	6.9
70°-80°	325.1	4.8
80°-90°	186.9	2.8
90°-100°	177.6	2.6
100°-110°	283.5	4.2
110°-120°	398.3	5.9
120°-130°	484.3	7.2
130°-140°	522.8	7.8
140°-150°	503.4	7.5
150°-160°	421.2	6.3
160°-170°	280.2	4.2
170°-180°	98.1	1.5
0°-30°	876.9	13.0
0°-40°	1437.6	21.4
0°-60°	2588.3	38.4
0°-90°	3563.2	52.9
90°-120°	859.5	12.8
90°-150°	2370.0	35.2
90°-180°	3170.0	47.1
0°-180°	6732.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1131	1127	1118	1128	1127	107
15°	1084	1085	1082	1092	1092	305
25°	992	999	1003	1016	1018	457
35°	868	883	896	912	917	543
45°	724	748	772	792	800	559
55°	567	594	631	656	664	505
65°	392	433	476	506	517	389
75°	218	265	318	352	364	231
85°	67	120	177	214	228	71
90°	23	82	143	183	196	16
95°	65	114	171	206	219	67
105°	198	226	274	307	321	211
115°	358	370	408	434	443	353
125°	515	515	544	566	573	459
135°	660	665	673	691	697	511
145°	800	802	802	809	812	500
155°	915	915	914	917	914	421
165°	996	994	992	996	994	281
175°	1036	1032	1031	1036	1031	98
180°	1038	1038	1038	1038	1038	



TEST NUMBER: P332850-927

CATALOG NUMBER: S124DIW-S1195D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7
2.5°	1133.7	1133.0	1132.3	1131.6	1131.0	1129.7	1127.9	1126.2	1124.3	1122.5	1124.1
5°	1130.8	1130.0	1129.2	1128.4	1127.5	1126.1	1124.1	1122.1	1120.2	1118.2	1120.5
7.5°	1121.3	1120.8	1120.2	1119.7	1119.3	1118.2	1116.6	1114.9	1113.3	1111.7	1114.2
10°	1113.2	1112.9	1112.6	1112.3	1112.1	1111.2	1109.8	1108.4	1107.0	1105.6	1108.1
12.5°	1102.0	1102.0	1101.9	1101.8	1101.8	1101.3	1100.3	1099.4	1098.4	1097.5	1099.8
15°	1084.1	1084.3	1084.7	1084.9	1085.2	1084.9	1084.1	1083.2	1082.4	1081.6	1084.1
17.5°	1059.5	1060.4	1061.2	1062.1	1062.9	1063.3	1063.1	1062.9	1062.7	1062.6	1065.2
20°	1042.4	1043.1	1044.0	1044.9	1045.7	1046.2	1046.6	1046.9	1047.1	1047.4	1050.2
22.5°	1023.1	1024.1	1025.2	1026.3	1027.4	1028.2	1028.6	1029.2	1029.7	1030.2	1033.0
25°	991.7	993.4	995.1	996.8	998.5	999.7	1000.6	1001.4	1002.3	1003.1	1006.2
27.5°	956.8	959.3	961.8	964.2	966.7	968.6	969.9	971.2	972.5	973.8	976.6
30°	933.5	935.8	938.0	940.3	942.5	944.7	946.6	948.6	950.5	952.5	955.6
32.5°	908.2	910.9	913.6	916.3	919.0	921.5	923.7	925.9	928.0	930.3	933.8
35°	867.8	871.2	874.5	877.9	881.2	884.3	887.2	889.9	892.8	895.6	899.5
37.5°	827.0	830.9	834.8	838.7	842.6	846.2	849.7	853.2	856.7	860.2	864.2
40°	800.7	804.4	808.0	811.7	815.3	819.1	823.1	827.0	830.9	834.9	839.1
42.5°	770.4	774.4	778.6	782.7	786.8	791.2	795.7	800.3	804.9	809.6	814.3
45°	723.6	728.9	734.3	739.6	744.9	750.3	755.6	761.0	766.3	771.7	776.4
47.5°	678.7	684.3	689.8	695.3	700.8	706.7	712.9	719.1	725.2	731.4	736.3
50°	646.4	652.6	658.8	665.0	671.1	677.3	683.5	689.7	695.9	702.0	707.7
52.5°	614.0	620.2	626.4	632.6	638.7	645.4	652.4	659.6	666.6	673.8	679.4
55°	566.7	572.6	578.5	584.4	590.3	597.5	605.9	614.3	622.8	631.2	636.8
57.5°	513.8	521.2	528.5	535.8	543.0	550.9	559.3	567.7	576.1	584.4	591.1
60°	479.4	486.7	494.0	501.4	508.7	517.0	526.2	535.5	544.8	554.1	560.5
62.5°	446.0	454.0	462.0	470.0	477.9	486.6	495.9	505.2	514.4	523.7	530.1
65°	392.1	401.2	410.1	419.1	428.1	437.4	446.9	456.5	466.0	475.6	482.7
67.5°	340.2	349.8	359.4	368.9	378.5	388.4	398.6	408.8	419.1	429.4	436.5
70°	304.8	314.4	324.0	333.5	343.1	353.2	363.8	374.5	385.2	395.9	403.5
72.5°	270.5	280.2	290.0	299.8	309.6	320.1	331.5	342.9	354.2	365.6	373.0
75°	217.6	228.0	238.4	248.7	259.2	270.3	282.1	293.9	305.7	317.5	325.3
77.5°	168.3	179.3	190.3	201.3	212.3	224.0	236.4	248.7	261.1	273.5	281.5
80°	137.9	149.1	160.3	171.6	182.8	194.6	207.0	219.4	231.8	244.2	252.5
82.5°	107.5	119.2	130.9	142.6	154.3	166.4	178.7	191.1	203.4	215.8	224.4
85°	67.0	78.8	90.6	102.4	114.2	126.5	139.1	151.8	164.5	177.1	185.5
87.5°	37.9	49.7	61.6	73.5	85.4	97.6	110.2	122.8	135.4	148.0	156.4
90°	22.7	35.9	49.0	62.3	75.5	88.8	102.3	115.9	129.4	142.9	152.1
92.5°	36.4	48.8	61.2	73.5	85.9	98.6	111.7	124.8	137.8	150.9	159.5
95°	64.6	75.5	86.3	97.2	108.1	119.9	132.7	145.5	158.3	171.0	179.2
97.5°	99.0	108.3	117.6	126.8	136.1	147.2	160.0	172.9	185.8	198.7	206.7
100°	126.3	134.3	142.3	150.4	158.4	168.7	181.3	193.8	206.4	219.0	226.9
102.5°	155.8	162.5	169.2	175.9	182.6	192.0	204.2	216.4	228.6	240.8	248.7
105°	198.4	204.1	210.0	215.8	221.6	230.0	241.1	252.2	263.4	274.5	282.0
107.5°	245.5	250.3	255.1	259.9	264.7	272.1	282.1	292.1	302.0	312.0	319.3
110°	276.6	280.8	285.1	289.5	293.7	300.7	310.4	320.0	329.7	339.4	345.5



TEST NUMBER: P332850-927

CATALOG NUMBER: S124DIW-S1195D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	309.0	312.5	316.0	319.6	323.1	329.5	338.5	347.6	356.6	365.8	371.9
115°	357.5	360.0	362.6	365.0	367.6	373.2	381.8	390.5	399.1	407.7	413.8
117.5°	404.4	406.1	407.7	409.4	411.1	416.0	424.1	432.2	440.4	448.5	453.7
120°	434.8	436.4	438.0	439.5	441.1	445.7	453.3	460.9	468.5	476.2	480.9
122.5°	467.6	468.1	468.5	469.0	469.4	473.4	480.9	488.3	495.7	503.2	508.2
125°	514.7	514.4	514.1	513.8	513.5	516.8	523.6	530.5	537.3	544.2	549.2
127.5°	558.3	558.5	558.7	559.0	559.2	561.9	567.0	572.1	577.3	582.3	587.1
130°	588.0	588.3	588.5	588.7	589.1	591.4	595.9	600.4	604.9	609.4	614.1
132.5°	619.5	619.6	619.7	619.8	620.0	621.7	625.2	628.6	632.1	635.6	640.0
135°	659.8	660.8	661.9	663.0	664.1	665.6	667.6	669.6	671.5	673.4	677.6
137.5°	705.0	705.3	705.5	705.7	705.9	706.6	707.9	709.2	710.3	711.6	715.3
140°	735.2	735.3	735.4	735.5	735.5	735.7	736.0	736.3	736.6	736.8	740.3
142.5°	761.8	762.2	762.4	762.7	763.0	763.0	762.7	762.4	762.1	761.8	764.9
145°	799.8	800.2	800.7	801.1	801.5	801.8	802.0	802.2	802.3	802.5	804.0
147.5°	837.7	838.2	838.8	839.4	840.0	840.2	840.0	839.9	839.7	839.6	839.6
150°	860.8	861.2	861.7	862.1	862.4	862.7	862.7	862.7	862.7	862.7	862.7
152.5°	881.5	881.9	882.3	882.7	883.0	883.3	883.4	883.6	883.8	883.9	884.3
155°	914.9	914.9	914.9	914.9	914.9	914.8	914.6	914.4	914.3	914.1	914.8
157.5°	943.1	942.8	942.5	942.1	941.8	941.7	941.6	941.6	941.5	941.5	942.1
160°	959.8	959.6	959.4	959.3	959.1	958.9	958.7	958.5	958.4	958.2	958.7
162.5°	975.2	974.8	974.3	973.8	973.4	973.0	972.9	972.7	972.5	972.3	973.3
165°	995.9	995.4	994.8	994.3	993.8	993.3	993.0	992.6	992.3	991.9	993.0
167.5°	1011.8	1011.1	1010.3	1009.6	1008.8	1008.4	1008.5	1008.5	1008.5	1008.6	1009.6
170°	1020.8	1019.9	1019.0	1018.1	1017.2	1016.8	1017.1	1017.2	1017.4	1017.6	1018.7
172.5°	1027.2	1026.4	1025.7	1025.0	1024.2	1023.9	1023.9	1024.0	1024.0	1024.0	1025.2
175°	1036.0	1035.1	1034.3	1033.4	1032.5	1032.0	1031.7	1031.6	1031.4	1031.3	1032.5
177.5°	1038.9	1038.2	1037.5	1036.8	1036.1	1035.7	1035.7	1035.7	1035.7	1035.7	1036.7
180°	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7



TEST NUMBER: P332850-927

CATALOG NUMBER: S124DIW-S1195D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7
2.5°	1125.7	1127.3	1128.9	1129.5	1129.3	1129.0	1128.9	1128.6
5°	1122.8	1125.0	1127.2	1128.2	1127.9	1127.7	1127.4	1127.1
7.5°	1116.7	1119.3	1121.8	1122.9	1122.6	1122.4	1122.0	1121.8
10°	1110.6	1113.2	1115.7	1116.8	1116.6	1116.3	1115.9	1115.7
12.5°	1102.1	1104.4	1106.7	1107.9	1107.8	1107.7	1107.6	1107.6
15°	1086.6	1089.2	1091.6	1092.8	1092.5	1092.3	1091.9	1091.6
17.5°	1067.8	1070.3	1072.9	1074.1	1073.9	1073.6	1073.4	1073.2
20°	1053.0	1055.8	1058.7	1060.0	1060.0	1060.0	1060.0	1060.0
22.5°	1035.8	1038.6	1041.4	1043.1	1043.5	1043.9	1044.4	1044.9
25°	1009.3	1012.4	1015.5	1017.2	1017.5	1017.7	1018.0	1018.3
27.5°	979.5	982.4	985.2	986.8	987.2	987.5	987.9	988.2
30°	958.7	961.8	964.9	966.7	967.3	967.8	968.4	969.0
32.5°	937.3	940.9	944.4	946.5	947.1	947.6	948.2	948.7
35°	903.5	907.4	911.3	913.7	914.6	915.4	916.2	917.1
37.5°	868.2	872.1	876.2	878.6	879.5	880.4	881.3	882.2
40°	843.3	847.6	851.8	854.4	855.6	856.7	857.8	858.9
42.5°	818.9	823.6	828.2	831.0	831.9	832.8	833.7	834.6
45°	781.2	786.0	790.8	793.8	795.3	796.6	798.0	799.5
47.5°	741.3	746.2	751.2	754.5	756.2	757.9	759.5	761.3
50°	713.3	718.9	724.5	728.2	729.9	731.6	733.2	734.9
52.5°	685.0	690.6	696.2	699.9	701.6	703.2	704.9	706.6
55°	642.5	648.1	653.7	657.4	659.0	660.8	662.4	664.1
57.5°	597.8	604.5	611.2	615.3	616.9	618.5	620.0	621.6
60°	567.0	573.5	579.9	584.2	586.5	588.7	591.0	593.3
62.5°	536.6	543.1	549.5	553.9	556.2	558.4	560.6	562.9
65°	489.6	496.7	503.7	508.3	510.6	512.9	515.2	517.4
67.5°	443.6	450.8	457.9	462.6	464.8	466.9	469.1	471.3
70°	411.1	418.7	426.3	431.1	433.0	435.0	437.0	438.9
72.5°	380.3	387.7	395.1	399.8	402.0	404.2	406.4	408.6
75°	333.3	341.1	349.0	354.2	356.7	359.3	361.8	364.3
77.5°	289.5	297.5	305.4	310.8	313.5	316.2	318.9	321.5
80°	261.0	269.4	277.9	283.2	285.4	287.7	289.9	292.2
82.5°	233.1	241.8	250.4	256.0	258.5	260.9	263.4	265.9
85°	193.9	202.4	210.8	216.4	219.3	222.0	224.9	227.7
87.5°	164.7	173.1	181.5	186.9	189.5	192.0	194.6	197.1
90°	161.4	170.6	179.7	185.7	188.3	190.9	193.5	196.1
92.5°	168.1	176.7	185.2	190.8	193.2	195.7	198.1	200.6
95°	187.3	195.4	203.5	208.9	211.4	214.0	216.4	219.0
97.5°	214.7	222.7	230.7	235.9	238.4	240.7	243.2	245.6
100°	234.8	242.7	250.7	255.6	257.6	259.6	261.6	263.6
102.5°	256.6	264.4	272.3	277.4	279.7	282.0	284.4	286.7
105°	289.6	297.1	304.8	309.9	312.7	315.4	318.3	321.1
107.5°	326.8	334.1	341.6	346.3	348.2	350.3	352.3	354.3
110°	351.6	357.7	363.8	368.2	371.0	373.8	376.6	379.4



TEST NUMBER: P332850-927

CATALOG NUMBER: S124DIW-S1195D1050U927-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	378.1	384.2	390.4	394.7	397.0	399.4	401.7	404.1
115°	419.8	425.8	431.7	435.7	437.4	439.3	441.0	442.8
117.5°	458.9	464.2	469.4	473.0	474.9	476.8	478.6	480.5
120°	485.6	490.4	495.0	498.8	501.4	504.0	506.5	509.1
122.5°	513.3	518.2	523.2	526.5	527.8	529.2	530.6	532.0
125°	554.2	559.2	564.1	567.3	568.6	570.0	571.3	572.6
127.5°	591.8	596.5	601.2	604.4	605.9	607.6	609.2	610.9
130°	618.9	623.5	628.2	631.1	632.0	633.0	634.0	634.9
132.5°	644.5	649.0	653.5	656.4	657.7	659.2	660.6	662.0
135°	681.8	685.9	690.0	692.7	693.8	695.0	696.1	697.3
137.5°	718.9	722.5	726.2	728.7	730.2	731.8	733.3	734.8
140°	743.8	747.3	750.8	753.0	754.3	755.5	756.8	758.0
142.5°	768.1	771.3	774.4	776.6	777.8	778.9	780.1	781.2
145°	805.6	807.1	808.6	809.6	810.2	810.8	811.4	812.0
147.5°	839.8	839.9	840.0	840.3	841.1	841.8	842.5	843.2
150°	862.7	862.7	862.7	862.6	862.4	862.3	862.1	861.9
152.5°	884.7	885.2	885.6	885.6	885.1	884.6	884.2	883.8
155°	915.5	916.2	917.0	917.0	916.2	915.5	914.8	914.1
157.5°	942.6	943.1	943.6	943.6	943.0	942.4	941.8	941.2
160°	959.3	959.8	960.4	960.1	959.3	958.4	957.5	956.6
162.5°	974.2	975.2	976.2	976.2	975.3	974.5	973.5	972.6
165°	994.0	995.1	996.2	996.3	995.6	994.9	994.2	993.5
167.5°	1010.7	1011.8	1012.9	1012.9	1011.8	1010.7	1009.6	1008.4
170°	1019.7	1020.8	1021.8	1021.8	1020.6	1019.3	1018.0	1016.8
172.5°	1026.4	1027.6	1028.9	1028.8	1027.6	1026.4	1025.1	1023.8
175°	1033.7	1035.0	1036.3	1036.3	1035.0	1033.7	1032.5	1031.3
177.5°	1037.8	1038.7	1039.7	1039.7	1038.5	1037.4	1036.3	1035.1
180°	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7	1037.7

(END OF REPORT)