

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: P333671-830

Luminaire Tested: **S125RDIW-S610D1050U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333671-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S610D1050U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5667.2 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Indirect

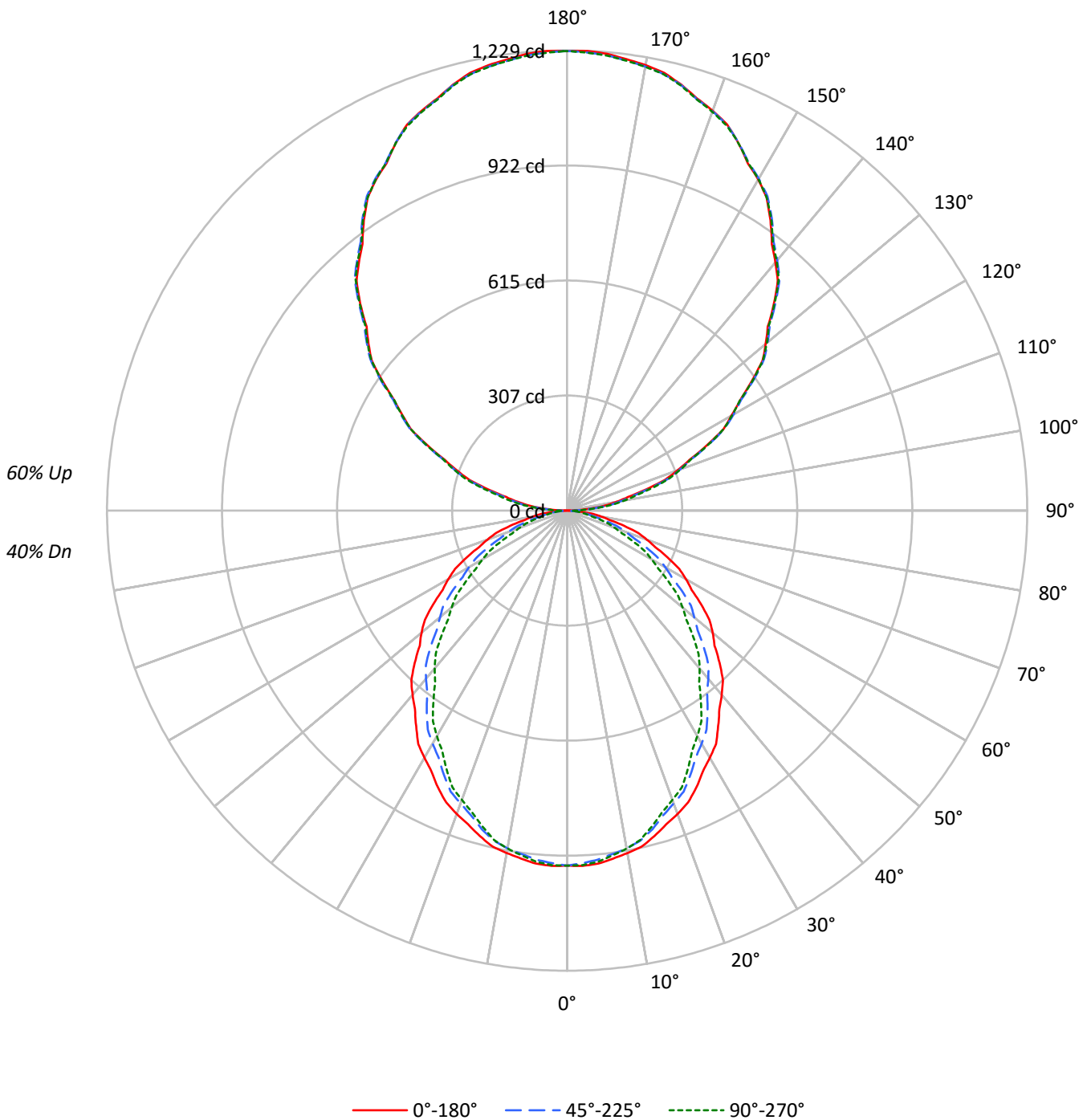
Input Watts (W): 45.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47	40
1	96	91	88	84	87	83	80	77	68	66	64	54	53	51	41	40	40	34
2	87	80	74	69	79	73	68	64	60	56	53	48	45	43	37	35	34	28
3	80	70	63	58	72	64	58	53	53	48	45	42	39	37	33	31	29	24
4	73	62	55	49	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	67	56	48	42	61	51	44	39	42	37	33	34	30	27	26	24	22	18
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	21	19	16
7	57	45	37	32	52	41	34	30	34	29	25	28	24	21	22	19	17	14
8	53	41	33	28	48	38	31	26	31	26	23	26	22	19	20	17	15	13
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	26	22	18	22	18	15	17	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6124	6124	6124
5°	6137	6067	6105
10°	6091	6011	6011
15°	6019	5889	5841
20°	5926	5720	5650
25°	5818	5552	5430
30°	5683	5357	5186
35°	5544	5155	4912
40°	5415	4945	4643
45°	5259	4709	4350
50°	5101	4454	4044
55°	4919	4209	3718
60°	4735	3912	3367
65°	4520	3568	2966
70°	4273	3138	2555
75°	3933	2643	2126
80°	3463	2079	1785
85°	2920	1697	1593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	1.6
10°-20°	249.2	4.4
20°-30°	361.3	6.4
30°-40°	411.8	7.3
40°-50°	401.4	7.1
50°-60°	337.9	6.0
60°-70°	236.8	4.2
70°-80°	121.7	2.1
80°-90°	33.4	0.6
90°-100°	82.2	1.5
100°-110°	242.7	4.3
110°-120°	411.1	7.3
120°-130°	541.1	9.5
130°-140°	606.3	10.7
140°-150°	594.2	10.5
150°-160°	499.1	8.8
160°-170°	331.7	5.9
170°-180°	116.1	2.0
0°-30°	699.6	12.3
0°-40°	1111.4	19.6
0°-60°	1850.7	32.7
0°-90°	2242.7	39.6
90°-120°	736.0	13.0
90°-150°	2477.6	43.7
90°-180°	3424.0	60.4
0°-180°	5667.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	947	944	936	943	942	90
15°	900	895	881	880	874	254
25°	816	805	779	770	762	375
35°	703	685	654	634	623	440
45°	576	554	516	488	476	444
55°	437	413	374	343	330	391
65°	296	271	234	206	194	293
75°	158	136	106	91	85	167
85°	39	27	23	22	22	44
90°	1	8	15	20	23	5
95°	62	64	74	80	82	66
105°	218	223	228	234	237	233
115°	412	415	417	416	416	407
125°	601	606	607	606	604	538
135°	781	787	788	788	784	602
145°	946	950	953	953	950	591
155°	1083	1083	1084	1087	1083	499
165°	1178	1176	1177	1180	1175	332
175°	1224	1221	1220	1226	1220	116
180°	1227	1227	1227	1227	1227	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2
2.5°	949.9	949.5	949.1	948.8	948.4	947.5	946.2	945.0	943.7	942.4	943.7
5°	946.7	946.1	945.5	944.8	944.1	943.0	941.2	939.5	937.7	935.9	937.5
7.5°	937.5	936.8	936.2	935.6	935.0	933.7	931.5	929.4	927.4	925.2	926.3
10°	928.8	928.3	927.8	927.4	926.9	925.6	923.3	921.1	918.9	916.6	917.1
12.5°	919.1	918.5	917.8	917.3	916.6	914.8	911.9	908.9	905.9	902.9	903.2
15°	900.2	899.2	898.2	897.3	896.4	894.2	890.9	887.5	884.2	880.8	880.7
17.5°	878.8	877.4	875.9	874.5	873.0	870.2	865.9	861.8	857.5	853.4	852.5
20°	862.2	860.6	859.0	857.4	855.8	852.5	847.4	842.4	837.3	832.2	831.3
22.5°	843.9	842.3	840.7	839.1	837.5	834.1	828.7	823.4	818.0	812.7	811.2
25°	816.4	814.0	811.6	809.3	806.8	802.7	796.8	790.9	785.0	779.1	777.1
27.5°	784.9	782.0	779.1	776.2	773.3	768.7	762.4	756.1	749.8	743.5	740.6
30°	762.0	758.9	755.9	752.9	749.9	745.0	738.3	731.7	725.0	718.3	714.6
32.5°	739.6	736.1	732.5	729.1	725.5	720.3	713.5	706.7	699.8	693.1	689.0
35°	703.2	699.5	695.6	691.8	688.0	682.5	675.3	668.2	661.0	653.8	649.2
37.5°	667.6	662.9	658.3	653.7	649.0	643.0	635.6	628.2	620.9	613.4	607.9
40°	642.3	637.6	632.8	628.0	623.3	617.1	609.4	601.8	594.2	586.5	580.5
42.5°	616.0	611.1	606.2	601.3	596.4	590.0	582.1	574.2	566.4	558.5	552.6
45°	575.8	571.2	566.6	561.9	557.3	550.6	541.9	533.1	524.3	515.6	509.3
47.5°	534.1	529.2	524.3	519.5	514.6	507.7	499.0	490.1	481.4	472.5	466.0
50°	507.7	502.5	497.2	492.0	486.7	479.6	470.5	461.5	452.3	443.3	436.6
52.5°	479.1	473.7	468.3	463.0	457.6	450.6	442.1	433.5	424.9	416.3	409.2
55°	436.9	431.8	426.7	421.6	416.5	409.4	400.6	391.6	382.8	373.8	366.6
57.5°	394.2	388.7	383.2	377.9	372.4	365.3	356.8	348.2	339.6	331.0	324.0
60°	366.6	361.1	355.5	350.0	344.4	337.3	328.7	320.1	311.5	302.9	296.0
62.5°	337.4	332.2	326.8	321.5	316.2	309.2	300.5	291.7	283.0	274.3	267.8
65°	295.8	290.4	284.9	279.6	274.1	267.2	258.7	250.3	241.9	233.5	227.1
67.5°	254.4	248.9	243.6	238.2	232.7	226.0	217.9	209.8	201.7	193.6	187.8
70°	226.3	220.9	215.5	210.1	204.6	197.9	190.0	182.1	174.1	166.2	161.2
72.5°	198.8	193.5	188.2	182.9	177.7	171.3	163.8	156.4	148.9	141.5	137.0
75°	157.6	152.8	148.0	143.3	138.5	132.7	126.0	119.3	112.6	105.9	102.5
77.5°	116.6	112.7	109.0	105.1	101.3	96.7	91.3	86.1	80.7	75.3	72.9
80°	93.1	89.3	85.5	81.6	77.9	73.7	69.2	64.8	60.3	55.9	54.4
82.5°	70.2	66.7	63.3	59.9	56.5	53.2	50.1	47.0	44.0	41.0	40.3
85°	39.4	36.5	33.6	30.8	27.9	26.1	25.3	24.5	23.8	22.9	22.7
87.5°	13.4	12.8	12.3	11.7	11.1	10.9	11.1	11.3	11.5	11.7	11.9
90°	0.9	2.6	4.3	6.0	7.7	9.3	10.8	12.3	13.8	15.3	16.3
92.5°	23.1	24.3	25.4	26.7	27.9	29.4	31.2	33.0	34.9	36.7	38.1
95°	62.1	62.5	63.0	63.3	63.8	65.0	67.2	69.3	71.4	73.5	75.0
97.5°	103.1	103.3	103.5	103.7	103.9	105.4	108.3	111.2	114.1	117.1	118.5
100°	133.7	133.7	133.7	133.7	133.7	135.1	137.8	140.6	143.4	146.1	148.1
102.5°	166.5	167.4	168.2	169.1	169.9	171.1	172.5	173.9	175.3	176.7	178.8
105°	217.7	218.8	219.9	220.9	222.0	223.2	224.4	225.7	227.0	228.3	229.5
107.5°	274.3	275.3	276.4	277.5	278.5	279.6	280.5	281.5	282.5	283.4	284.1
110°	313.2	314.3	315.4	316.4	317.5	318.4	319.0	319.6	320.3	320.9	321.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	353.0	353.5	354.1	354.7	355.2	355.9	356.7	357.5	358.3	359.1	359.4
115°	411.6	412.5	413.3	414.2	415.0	415.7	416.0	416.5	416.9	417.4	417.2
117.5°	470.4	470.8	471.2	471.6	472.0	472.4	472.8	473.2	473.5	473.9	474.1
120°	507.1	508.2	509.3	510.3	511.3	512.0	512.2	512.5	512.6	512.8	512.8
122.5°	546.9	547.2	547.6	548.0	548.4	548.8	549.4	550.0	550.5	551.1	550.9
125°	600.7	602.0	603.2	604.5	605.8	606.5	606.8	607.0	607.2	607.4	607.0
127.5°	658.0	658.7	659.5	660.2	660.9	661.4	661.7	661.9	662.1	662.4	662.2
130°	692.4	693.4	694.6	695.6	696.6	697.4	697.9	698.2	698.7	699.1	698.9
132.5°	726.8	728.5	730.3	732.0	733.8	734.6	734.5	734.4	734.3	734.2	734.1
135°	781.2	782.5	783.7	785.0	786.4	787.0	787.3	787.5	787.7	787.9	787.9
137.5°	832.5	833.7	834.9	836.1	837.4	838.2	838.7	839.1	839.6	840.1	840.3
140°	865.3	866.3	867.4	868.5	869.5	870.3	871.0	871.7	872.2	872.9	873.4
142.5°	898.1	899.0	899.9	900.8	901.7	902.6	903.3	904.2	904.9	905.8	906.0
145°	946.4	947.3	948.1	949.0	949.8	950.6	951.2	951.9	952.5	953.1	953.1
147.5°	991.2	991.6	992.1	992.5	993.0	993.5	994.0	994.5	995.0	995.5	996.1
150°	1021.0	1020.8	1020.5	1020.3	1020.1	1020.4	1021.2	1022.1	1022.9	1023.8	1023.8
152.5°	1045.4	1045.7	1045.9	1046.3	1046.6	1046.9	1047.3	1047.5	1047.9	1048.3	1048.8
155°	1083.0	1083.0	1083.0	1083.0	1083.0	1083.1	1083.4	1083.5	1083.7	1084.0	1084.9
157.5°	1116.6	1116.2	1115.7	1115.2	1114.7	1114.7	1114.8	1115.0	1115.3	1115.5	1116.3
160°	1136.5	1135.9	1135.2	1134.6	1134.0	1133.8	1134.0	1134.2	1134.3	1134.6	1135.5
162.5°	1154.0	1153.6	1153.1	1152.6	1152.2	1152.0	1152.1	1152.1	1152.2	1152.2	1153.2
165°	1177.6	1177.1	1176.7	1176.3	1175.8	1175.7	1176.0	1176.2	1176.4	1176.6	1177.4
167.5°	1197.4	1196.6	1195.7	1194.9	1194.0	1193.6	1193.6	1193.6	1193.6	1193.6	1194.9
170°	1208.2	1207.3	1206.5	1205.6	1204.8	1204.3	1204.3	1204.3	1204.3	1204.3	1205.6
172.5°	1215.8	1214.9	1214.1	1213.2	1212.4	1211.9	1211.9	1211.9	1211.9	1211.9	1213.2
175°	1224.4	1223.5	1222.7	1221.8	1221.0	1220.5	1220.5	1220.5	1220.5	1220.5	1221.8
177.5°	1228.8	1228.0	1227.4	1226.7	1226.1	1225.6	1225.4	1225.3	1225.1	1224.9	1226.0
180°	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	948.2	948.2	948.2	948.2	948.2	948.2	948.2	948.2
2.5°	945.0	946.2	947.5	948.1	948.0	947.8	947.7	947.6
5°	939.1	940.8	942.4	943.0	942.6	942.4	942.1	941.7
7.5°	927.5	928.6	929.7	930.1	929.7	929.3	929.1	928.7
10°	917.6	918.0	918.6	918.6	918.0	917.6	917.1	916.6
12.5°	903.6	904.0	904.3	904.1	903.3	902.7	901.9	901.2
15°	880.5	880.3	880.2	879.4	878.0	876.6	875.2	873.6
17.5°	851.8	850.9	850.2	849.1	848.0	846.8	845.6	844.4
20°	830.6	829.7	829.0	827.8	826.4	825.0	823.6	822.1
22.5°	809.5	807.9	806.4	805.0	803.9	802.7	801.5	800.3
25°	775.1	773.0	770.9	768.9	767.2	765.4	763.7	762.0
27.5°	737.7	734.8	731.9	729.6	727.9	726.2	724.5	722.8
30°	711.0	707.3	703.6	701.1	699.6	698.2	696.8	695.4
32.5°	684.9	681.0	676.9	674.0	672.1	670.3	668.5	666.8
35°	644.6	640.0	635.4	632.0	629.7	627.5	625.3	623.0
37.5°	602.4	596.8	591.3	587.4	585.2	583.2	581.0	578.8
40°	574.4	568.4	562.3	558.4	556.5	554.5	552.6	550.7
42.5°	546.9	541.0	535.3	530.9	528.2	525.4	522.5	519.8
45°	502.8	496.5	490.1	485.8	483.4	481.0	478.6	476.3
47.5°	459.4	452.8	446.3	441.7	439.0	436.4	433.8	431.1
50°	429.9	423.2	416.5	412.0	409.6	407.3	404.8	402.5
52.5°	402.0	394.7	387.6	382.8	380.4	378.1	375.6	373.2
55°	359.5	352.3	345.2	340.4	337.8	335.3	332.7	330.2
57.5°	317.0	310.0	303.0	298.3	296.1	293.8	291.6	289.4
60°	288.9	281.9	274.9	270.2	267.9	265.4	263.1	260.7
62.5°	261.3	254.8	248.3	243.8	241.5	239.1	236.7	234.3
65°	220.7	214.3	208.0	203.6	201.2	198.9	196.4	194.1
67.5°	182.0	176.2	170.3	166.5	164.6	162.7	160.7	158.8
70°	156.3	151.4	146.4	143.0	141.1	139.2	137.2	135.3
72.5°	132.4	127.8	123.3	120.4	119.1	117.8	116.6	115.3
75°	99.0	95.5	92.0	89.6	88.6	87.5	86.3	85.2
77.5°	70.4	68.0	65.5	63.9	63.1	62.2	61.5	60.6
80°	53.0	51.6	50.1	49.3	48.9	48.6	48.3	48.0
82.5°	39.6	38.9	38.3	37.9	37.7	37.5	37.3	37.1
85°	22.6	22.4	22.2	22.1	22.0	21.8	21.7	21.5
87.5°	12.1	12.3	12.5	12.6	12.6	12.6	12.6	12.6
90°	17.4	18.5	19.5	20.4	21.0	21.7	22.2	22.9
92.5°	39.5	40.9	42.3	43.2	43.6	44.1	44.6	45.1
95°	76.5	77.9	79.5	80.4	80.9	81.2	81.7	82.1
97.5°	119.9	121.3	122.7	123.5	123.8	124.0	124.3	124.5
100°	150.0	151.8	153.7	155.0	155.3	155.8	156.2	156.7
102.5°	180.9	182.9	185.0	186.3	186.9	187.6	188.1	188.7
105°	230.8	232.1	233.4	234.3	235.0	235.5	236.2	236.9
107.5°	284.7	285.4	286.0	286.3	286.3	286.3	286.2	286.2
110°	322.2	322.8	323.5	323.7	323.5	323.2	323.0	322.8



TEST NUMBER: P333671-830

CATALOG NUMBER: S125RDIW-S610D1050U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	359.7	360.0	360.2	360.2	359.9	359.5	359.1	358.7
115°	416.9	416.7	416.5	416.3	416.0	415.8	415.7	415.5
117.5°	474.2	474.4	474.6	474.2	473.3	472.5	471.6	470.8
120°	512.8	512.8	512.8	512.5	511.6	510.8	509.9	509.1
122.5°	550.7	550.5	550.4	550.0	549.3	548.6	547.9	547.2
125°	606.5	606.1	605.7	605.4	605.2	604.9	604.7	604.5
127.5°	661.9	661.8	661.6	661.3	660.8	660.4	660.0	659.6
130°	698.7	698.4	698.2	698.0	697.5	697.1	696.6	696.3
132.5°	733.8	733.6	733.4	733.0	732.4	731.8	731.2	730.6
135°	787.9	787.9	787.9	787.5	786.6	785.8	784.9	784.1
137.5°	840.6	840.8	841.0	840.7	839.6	838.6	837.4	836.4
140°	873.7	874.2	874.6	874.3	873.3	872.1	871.1	870.1
142.5°	906.3	906.5	906.8	906.3	905.3	904.3	903.2	902.1
145°	953.1	953.1	953.1	952.8	952.2	951.5	950.9	950.3
147.5°	996.6	997.0	997.6	997.1	995.7	994.2	992.8	991.4
150°	1023.8	1023.8	1023.8	1023.6	1023.1	1022.8	1022.3	1021.9
152.5°	1049.2	1049.8	1050.3	1050.2	1049.4	1048.7	1047.8	1047.1
155°	1085.7	1086.6	1087.4	1087.2	1086.2	1085.1	1084.1	1083.0
157.5°	1117.2	1118.0	1118.9	1118.6	1117.2	1115.8	1114.4	1113.0
160°	1136.3	1137.2	1138.0	1137.8	1136.8	1135.8	1134.7	1133.6
162.5°	1154.2	1155.2	1156.2	1156.1	1154.9	1153.7	1152.4	1151.2
165°	1178.3	1179.1	1180.0	1179.8	1178.6	1177.2	1176.0	1174.7
167.5°	1196.2	1197.4	1198.7	1198.7	1197.4	1196.1	1194.8	1193.4
170°	1206.8	1208.2	1209.4	1209.3	1207.8	1206.4	1204.9	1203.3
172.5°	1214.5	1215.8	1217.0	1217.0	1215.7	1214.4	1213.1	1211.7
175°	1223.0	1224.4	1225.7	1225.5	1224.1	1222.6	1221.1	1219.6
177.5°	1227.0	1228.0	1229.0	1228.9	1227.8	1226.5	1225.4	1224.2
180°	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2	1227.2

(END OF REPORT)