

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: P242924

Luminaire Tested: **S125RDR-S610D930-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242924
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-32)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDR-S610D930-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1847.3 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

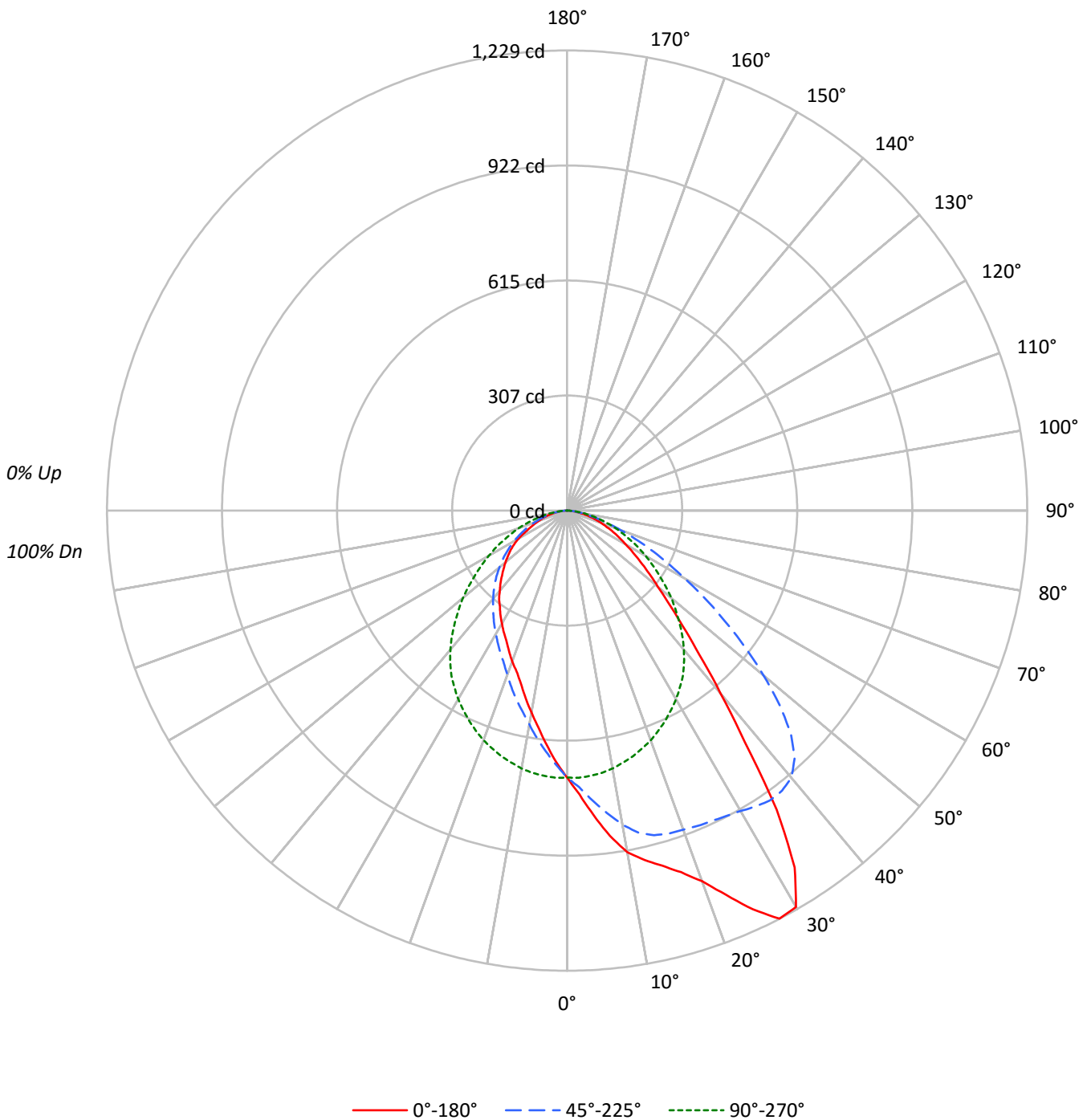
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242924

CATALOG NUMBER: S125RDR-S610D930-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P242924

CATALOG NUMBER: S125RDR-S610D930-X4F0-XX-UDD-A-W

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	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					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88					86				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75					73				
3	92	83	75	69	90	81	74	69	78	72	67	76	70	66	73	69	65					63				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57					55				
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50					48				
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44					42				
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39					37				
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35					34				
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5068	5068	5068
5°	5830	5074	4481
10°	6687	5048	3954
15°	7223	4996	3515
20°	7965	4937	3245
25°	9218	4857	3011
30°	10031	4773	2858
35°	8461	4675	2717
40°	5909	4500	2596
45°	4383	4263	2477
50°	3495	4016	2375
55°	2966	3710	2285
60°	2563	3437	2138
65°	2284	3140	1842
70°	2007	2876	1679
75°	1736	2491	1576
80°	1318	2096	1318
85°	1101	1647	1240



TEST NUMBER: P242924

CATALOG NUMBER: S125RDR-S610D930-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	3.7
10°-20°	200.4	10.9
20°-30°	317.8	17.2
30°-40°	384.1	20.8
40°-50°	342.0	18.5
50°-60°	262.2	14.2
60°-70°	170.3	9.2
70°-80°	82.6	4.5
80°-90°	19.4	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°	586.6	31.8
0°-40°	970.7	52.5
0°-60°	1574.9	85.3
0°-90°	1847.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1847.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	713	713	713	713	713	
5°	817	777	711	646	628	81
15°	982	898	679	523	478	281
25°	1175	915	619	421	384	541
35°	975	945	539	343	313	591
45°	436	846	424	272	246	346
55°	239	513	299	200	184	217
65°	136	245	187	128	110	135
75°	63	86	91	63	57	67
85°	14	15	20	16	15	16
90°	0	0	0	0	0	



TEST NUMBER: P242924

CATALOG NUMBER: S125RDR-S610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
2.5°	759.2	758.6	759.8	756.6	756.9	751.9	751.9	748.1	743.1	739.3	737.6
5°	817.2	817.8	816.6	812.2	809.3	804.9	799.9	791.1	783.8	776.8	771.2
7.5°	876.3	876.9	873.1	872.2	864.6	859.9	848.8	837.4	827.4	814.3	804.9
10°	926.6	926.3	922.3	919.0	912.6	904.4	893.6	879.5	866.3	851.7	837.7
12.5°	955.9	955.0	954.4	950.4	944.5	937.5	928.7	914.9	898.0	881.6	864.6
15°	981.7	979.6	975.8	970.8	962.4	953.9	943.6	931.3	915.8	897.7	882.4
17.5°	1012.7	1013.0	1007.1	1001.9	990.7	976.7	961.5	942.7	922.8	904.4	889.2
20°	1053.1	1052.2	1046.4	1032.9	1019.7	1001.0	982.8	958.5	932.8	906.7	886.5
22.5°	1111.0	1108.4	1102.3	1083.5	1061.3	1035.8	1005.7	974.6	942.2	911.7	883.6
25°	1175.4	1173.7	1161.7	1141.2	1112.5	1075.3	1039.0	998.4	953.6	914.6	882.4
27.5°	1228.7	1225.2	1214.4	1195.0	1166.9	1126.8	1076.8	1024.1	970.8	919.6	875.4
30°	1222.3	1226.6	1225.5	1217.6	1197.7	1162.5	1117.2	1056.0	989.6	926.6	871.3
32.5°	1130.4	1134.2	1147.3	1168.7	1175.1	1166.4	1135.3	1080.0	1010.6	936.9	868.1
35°	975.2	980.5	1000.4	1031.7	1072.7	1106.9	1114.0	1083.5	1021.8	944.8	864.9
37.5°	778.0	812.2	825.7	857.6	922.0	984.3	1038.4	1050.7	1017.4	943.0	861.1
40°	636.9	643.9	673.8	710.9	763.0	828.6	914.9	977.3	979.3	931.3	848.8
42.5°	522.2	531.5	549.7	577.5	620.2	685.8	775.6	862.8	910.0	899.1	832.7
45°	436.1	442.8	457.8	480.6	514.8	569.0	645.7	740.8	816.3	845.9	801.4
47.5°	368.8	372.3	386.1	404.5	430.8	471.8	534.2	620.2	710.1	770.1	758.3
50°	316.1	320.2	330.1	343.3	364.7	398.1	445.5	514.2	607.6	685.2	700.7
52.5°	275.1	278.3	283.6	295.9	312.6	336.3	372.3	432.9	514.5	598.2	639.2
55°	239.4	241.8	246.7	253.8	267.8	286.2	319.3	362.3	430.2	513.4	566.1
57.5°	209.0	210.1	213.1	220.1	230.3	244.1	269.3	308.5	357.7	435.8	493.8
60°	180.3	181.5	185.6	190.0	197.6	209.9	228.6	254.1	300.9	362.6	421.5
62.5°	157.5	158.1	159.2	163.6	170.1	178.8	192.6	212.2	247.0	299.4	354.1
65°	135.8	136.1	136.7	140.2	144.3	151.3	161.0	175.6	203.7	244.7	293.9
67.5°	114.1	114.7	116.8	118.0	122.9	126.4	132.6	144.3	166.0	195.2	235.0
70°	96.6	96.3	98.3	99.8	101.3	105.7	109.5	118.5	130.8	151.9	183.8
72.5°	80.2	79.3	79.9	80.2	82.2	84.9	88.7	93.4	102.1	115.0	137.6
75°	63.2	63.5	63.5	64.1	65.6	66.7	67.9	70.8	76.1	85.8	98.9
77.5°	47.4	46.8	48.3	48.3	49.5	50.9	51.8	53.0	55.0	59.4	67.3
80°	32.2	32.2	32.5	33.4	33.1	33.7	35.1	36.3	38.9	41.3	43.6
82.5°	22.8	22.5	22.8	22.8	22.8	23.4	23.7	23.7	24.3	25.2	26.6
85°	13.5	13.5	13.8	13.8	14.0	14.0	14.3	14.3	14.3	14.6	14.9
87.5°	6.4	6.1	5.9	5.9	6.1	6.7	6.4	6.1	6.1	6.1	6.4
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: P242924

CATALOG NUMBER: S125RDR-S610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
2.5°	737.6	735.5	731.7	728.2	723.8	720.0	717.4	714.2	710.1	705.1	701.0
5°	765.1	758.6	750.2	742.8	733.5	726.2	718.5	711.2	703.9	694.5	686.3
7.5°	795.5	782.9	771.2	756.0	742.3	730.3	718.5	706.5	695.1	682.3	670.2
10°	823.0	806.9	789.1	768.6	749.9	732.0	715.6	699.5	682.5	667.6	651.5
12.5°	848.8	826.8	805.8	778.5	755.1	732.3	710.3	689.3	670.8	650.3	632.8
15°	862.3	841.8	818.9	787.3	756.0	729.7	705.1	679.0	656.5	634.8	615.5
17.5°	870.2	848.5	822.2	791.4	757.8	725.0	694.0	666.2	640.4	615.5	594.2
20°	866.6	845.9	818.6	789.7	753.1	718.5	684.3	652.7	623.1	596.5	573.4
22.5°	858.2	836.5	810.4	779.4	745.2	708.0	670.8	636.6	605.3	577.5	551.7
25°	849.7	820.4	793.5	763.6	730.5	694.3	656.5	619.3	586.2	558.2	530.6
27.5°	841.5	806.1	772.7	744.0	708.6	675.8	638.9	600.6	566.1	537.7	509.6
30°	829.5	788.5	750.7	717.1	684.0	653.3	618.7	581.6	545.9	516.3	487.6
32.5°	814.5	770.3	727.9	687.8	656.2	625.8	595.3	560.2	525.7	494.9	465.7
35°	802.5	746.9	701.9	660.6	625.2	595.6	567.5	538.8	504.0	472.4	444.0
37.5°	785.9	724.7	673.8	628.7	591.8	562.5	540.0	512.8	480.3	449.6	423.2
40°	770.9	700.1	643.0	598.5	559.3	528.0	507.2	485.0	456.0	427.6	401.3
42.5°	751.0	677.6	612.0	565.2	525.7	495.8	474.7	456.0	432.9	406.5	377.9
45°	723.8	647.1	580.1	530.3	490.5	461.0	441.4	424.1	405.7	381.1	356.5
47.5°	691.3	618.2	547.6	492.9	454.5	426.7	407.4	393.1	379.6	358.2	333.4
50°	650.6	580.7	512.2	459.5	418.0	391.9	374.1	363.2	351.2	332.2	312.3
52.5°	602.6	542.1	475.3	421.2	382.5	358.5	341.6	330.7	321.4	306.7	288.0
55°	551.7	497.0	435.5	386.6	350.6	326.1	309.7	299.4	293.6	280.4	265.5
57.5°	494.1	451.9	396.3	348.6	316.1	291.5	279.2	270.1	263.4	253.8	242.6
60°	433.2	405.7	357.1	312.3	283.0	259.9	249.1	241.8	235.6	227.7	219.5
62.5°	371.4	353.3	312.6	275.7	249.4	230.9	221.0	214.5	207.2	202.5	194.6
65°	317.6	299.7	270.4	240.3	215.4	199.9	192.6	186.7	182.3	176.5	170.9
67.5°	257.9	249.7	228.0	205.5	187.3	172.4	166.0	161.3	156.3	152.8	148.7
70°	203.7	200.2	185.9	172.1	155.4	146.1	140.2	138.4	132.0	128.5	125.9
72.5°	155.7	154.5	147.8	139.3	128.8	120.9	115.6	113.6	110.0	107.4	106.0
75°	113.3	113.9	112.4	106.2	101.9	96.6	91.9	90.7	87.8	85.5	84.0
77.5°	77.3	80.2	79.6	79.3	77.3	73.5	71.4	70.5	67.3	66.4	66.1
80°	49.2	52.4	55.3	55.0	54.4	53.6	52.1	51.2	49.8	48.9	48.3
82.5°	28.7	31.6	34.0	36.0	36.0	35.1	34.2	34.0	34.0	33.4	33.4
85°	15.5	16.1	17.0	19.0	20.5	20.8	20.5	20.2	19.3	19.6	19.9
87.5°	6.7	6.7	7.0	7.0	6.7	8.2	9.1	9.4	8.8	8.2	7.6
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: P242924

CATALOG NUMBER: S125RDR-S610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
2.5°	698.1	694.0	691.0	685.2	681.1	679.3	676.1	675.2	678.4	676.1	675.8
5°	680.2	671.7	665.0	658.2	650.9	646.2	639.2	638.1	636.3	633.7	633.1
7.5°	659.4	648.9	641.0	629.9	620.8	613.5	604.7	601.2	599.4	596.2	590.9
10°	638.3	625.2	613.5	602.3	590.3	580.7	571.9	565.2	560.8	556.7	554.9
12.5°	617.6	604.1	588.3	574.2	560.5	549.4	539.4	535.6	530.6	525.7	521.0
15°	595.9	578.1	561.7	546.2	534.7	523.0	513.7	507.2	499.9	497.9	490.0
17.5°	572.8	556.1	536.8	520.1	507.2	494.9	484.7	477.1	471.5	463.6	459.8
20°	551.4	530.6	511.9	497.0	482.3	467.1	456.6	450.4	445.2	439.0	436.1
22.5°	528.6	508.4	489.1	470.9	456.0	441.1	434.3	427.9	421.8	416.2	412.1
25°	506.3	485.9	465.7	447.5	432.0	421.2	412.4	405.1	401.9	396.3	392.2
27.5°	484.1	462.4	442.0	422.9	410.9	400.1	393.1	387.2	381.1	376.1	372.3
30°	462.7	440.5	417.7	403.3	390.4	380.2	372.3	366.7	362.3	358.0	355.3
32.5°	441.4	418.2	398.6	382.8	370.8	362.3	354.1	348.9	344.2	339.2	336.0
35°	418.2	394.8	378.4	363.2	351.2	343.0	337.5	329.9	326.1	322.5	319.3
37.5°	397.5	375.2	357.1	343.9	332.8	324.9	317.6	313.8	308.8	305.9	303.2
40°	374.1	354.1	338.1	324.0	316.4	307.3	300.6	295.3	291.8	287.7	284.8
42.5°	353.0	334.8	319.3	307.0	297.1	289.8	283.3	278.1	273.4	270.7	268.4
45°	333.4	314.9	299.7	288.0	279.2	271.9	265.2	262.5	256.7	253.2	252.0
47.5°	312.9	296.2	281.3	270.4	261.4	254.6	248.2	242.3	239.4	235.9	234.1
50°	292.1	276.3	262.5	252.0	243.2	235.6	229.8	226.2	221.9	218.6	216.3
52.5°	271.3	257.0	243.2	233.3	226.0	218.3	211.6	208.1	204.0	202.2	200.8
55°	251.7	236.2	224.5	214.5	206.6	199.6	193.5	190.0	187.3	185.3	184.7
57.5°	229.2	216.6	205.5	196.7	188.2	181.5	175.9	172.7	170.3	170.1	168.0
60°	207.2	196.1	186.1	176.5	169.5	163.3	158.6	154.8	152.5	152.2	151.6
62.5°	185.3	174.7	165.7	157.5	151.3	145.5	141.1	136.7	135.5	133.8	132.3
65°	163.6	154.0	146.3	139.6	132.9	127.9	123.5	120.9	117.7	115.9	112.7
67.5°	142.2	134.3	127.0	121.5	115.9	110.9	107.1	103.3	101.0	99.5	96.9
70°	121.2	115.3	108.0	101.9	97.8	94.0	91.0	86.6	85.2	84.0	82.8
72.5°	101.3	96.3	90.4	85.8	81.7	78.1	74.6	73.2	71.7	70.5	70.0
75°	82.8	77.9	72.6	69.1	66.1	63.2	61.5	60.0	59.4	59.1	58.0
77.5°	64.4	61.5	57.1	53.9	51.8	50.6	48.9	48.3	48.6	47.1	46.8
80°	46.5	45.1	41.6	40.4	38.9	37.8	36.9	35.4	34.0	33.4	32.5
82.5°	31.6	30.1	29.3	27.2	26.0	25.5	24.6	24.3	24.9	24.0	23.7
85°	18.4	17.0	16.4	16.1	15.5	16.1	15.8	15.5	15.2	14.9	15.2
87.5°	7.3	7.3	7.0	7.6	6.7	7.0	7.0	6.7	6.7	6.7	6.4
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: P242924

CATALOG NUMBER: S125RDR-S610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	713.0	713.0	713.0	713.0
2.5°	675.5	672.3	671.4	672.6
5°	630.2	627.2	628.7	628.1
7.5°	591.8	588.0	583.6	584.8
10°	551.1	548.2	546.4	547.9
12.5°	516.9	515.4	514.0	512.8
15°	486.4	482.9	481.5	477.7
17.5°	457.2	456.0	452.2	449.6
20°	431.7	430.5	426.7	429.1
22.5°	410.6	407.7	407.1	405.7
25°	391.0	387.2	385.8	384.0
27.5°	371.1	369.1	367.0	366.4
30°	351.8	349.8	348.3	348.3
32.5°	334.5	333.1	331.6	331.3
35°	317.9	315.5	314.9	313.2
37.5°	300.3	298.2	298.2	298.5
40°	283.6	282.1	281.9	279.8
42.5°	265.8	265.2	264.0	263.4
45°	250.0	247.9	247.9	246.4
47.5°	233.3	231.5	231.8	230.1
50°	216.6	215.7	215.4	214.8
52.5°	199.9	199.6	201.1	199.6
55°	185.3	184.4	186.1	184.4
57.5°	168.0	167.4	169.2	168.0
60°	151.0	149.3	150.1	150.4
62.5°	130.8	130.0	130.5	128.8
65°	112.1	111.2	110.0	109.5
67.5°	97.5	94.8	94.8	95.4
70°	81.1	81.1	80.8	80.8
72.5°	69.7	69.4	68.8	68.5
75°	58.0	58.2	57.7	57.4
77.5°	45.4	43.9	44.5	43.9
80°	32.5	32.2	33.1	32.2
82.5°	24.0	23.7	24.0	23.4
85°	15.5	15.2	14.9	15.2
87.5°	6.7	6.4	6.4	6.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)