

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: P242904

Luminaire Tested: **S125RDR-S610D927-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242904
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-S610D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1794.9 lumens
Efficiency: N/A
Efficacy: 95.5 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

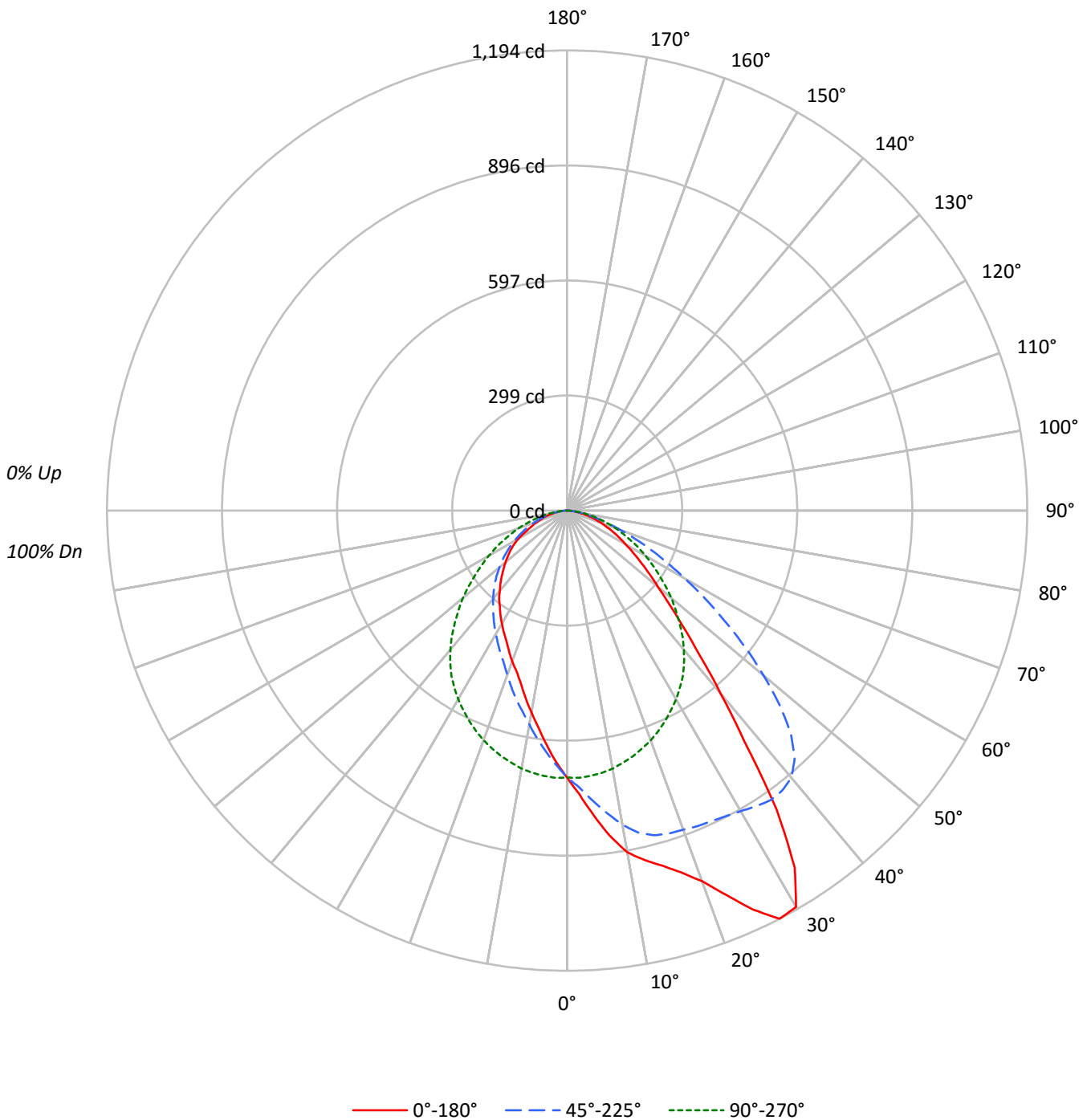
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4924	4924	4924
5°	5665	4931	4354
10°	6498	4905	3842
15°	7018	4855	3415
20°	7739	4797	3153
25°	8956	4719	2926
30°	9746	4638	2777
35°	8222	4543	2640
40°	5741	4372	2523
45°	4259	4142	2407
50°	3396	3902	2308
55°	2882	3605	2221
60°	2490	3339	2078
65°	2220	3051	1789
70°	1949	2795	1631
75°	1686	2422	1530
80°	1281	2038	1281
85°	1068	1598	1207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	3.7
10°-20°	194.8	10.9
20°-30°	308.8	17.2
30°-40°	373.2	20.8
40°-50°	332.3	18.5
50°-60°	254.8	14.2
60°-70°	165.5	9.2
70°-80°	80.3	4.5
80°-90°	18.9	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°	570.0	31.8
0°-40°	943.2	52.5
0°-60°	1530.3	85.3
0°-90°	1794.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1794.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	693	693	693	693	693	
5°	794	755	691	628	610	79
15°	954	872	660	508	464	273
25°	1142	889	602	409	373	526
35°	948	918	524	333	304	574
45°	424	822	412	264	240	336
55°	233	499	291	194	179	211
65°	132	238	181	124	106	131
75°	61	83	88	61	56	65
85°	13	14	20	16	15	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	737.7	737.1	738.3	735.1	735.4	730.6	730.6	726.9	722.1	718.4	716.7
5°	794.0	794.6	793.4	789.2	786.3	782.1	777.2	768.7	761.6	754.8	749.4
7.5°	851.5	852.0	848.3	847.5	840.1	835.5	824.7	813.6	804.0	791.2	782.1
10°	900.4	900.1	896.1	893.0	886.7	878.8	868.2	854.6	841.8	827.6	813.9
12.5°	928.8	928.0	927.4	923.4	917.7	910.9	902.4	889.0	872.5	856.6	840.1
15°	953.8	951.8	948.1	943.3	935.1	926.8	916.9	904.9	889.8	872.2	857.4
17.5°	984.0	984.3	978.6	973.5	962.6	949.0	934.2	916.0	896.7	878.8	864.0
20°	1023.2	1022.4	1016.7	1003.6	990.8	972.6	955.0	931.4	906.3	881.0	861.4
22.5°	1079.5	1077.0	1071.0	1052.8	1031.2	1006.4	977.2	947.0	915.4	885.9	858.6
25°	1142.1	1140.4	1128.7	1108.8	1081.0	1044.8	1009.6	970.0	926.5	888.7	857.4
27.5°	1193.9	1190.4	1179.9	1161.2	1133.8	1094.9	1046.3	995.1	943.3	893.5	850.6
30°	1187.6	1191.9	1190.7	1183.0	1163.7	1129.6	1085.5	1026.1	961.5	900.4	846.6
32.5°	1098.3	1102.0	1114.8	1135.6	1141.8	1133.3	1103.1	1049.4	982.0	910.3	843.5
35°	947.6	952.7	972.0	1002.5	1042.3	1075.6	1082.4	1052.8	992.8	918.0	840.4
37.5°	755.9	789.2	802.3	833.3	895.8	956.4	1009.0	1020.9	988.5	916.3	836.7
40°	618.8	625.7	654.7	690.8	741.4	805.1	889.0	949.6	951.6	904.9	824.7
42.5°	507.3	516.4	534.1	561.1	602.6	666.3	753.6	838.4	884.2	873.6	809.1
45°	423.7	430.3	444.8	467.0	500.2	552.8	627.4	719.8	793.2	821.9	778.7
47.5°	358.3	361.7	375.1	393.0	418.6	458.4	519.0	602.6	689.9	748.2	736.8
50°	307.1	311.1	320.8	333.6	354.3	386.8	432.8	499.7	590.4	665.7	680.8
52.5°	267.3	270.5	275.6	287.5	303.7	326.8	361.7	420.6	500.0	581.3	621.1
55°	232.6	234.9	239.7	246.6	260.2	278.1	310.3	352.1	418.0	498.8	550.0
57.5°	203.1	204.2	207.0	213.9	223.8	237.2	261.6	299.7	347.5	423.5	479.8
60°	175.2	176.3	180.3	184.6	192.0	203.9	222.1	246.8	292.3	352.4	409.5
62.5°	153.0	153.6	154.7	159.0	165.2	173.8	187.1	206.2	240.0	290.9	344.1
65°	132.0	132.2	132.8	136.2	140.2	147.0	156.4	170.6	197.9	237.7	285.5
67.5°	110.9	111.5	113.5	114.6	119.4	122.9	128.8	140.2	161.2	189.7	228.4
70°	93.8	93.6	95.6	97.0	98.4	102.7	106.4	115.2	127.1	147.6	178.6
72.5°	77.9	77.1	77.6	77.9	79.9	82.5	86.2	90.7	99.3	111.8	133.7
75°	61.4	61.7	61.7	62.3	63.7	64.8	66.0	68.8	73.9	83.3	96.1
77.5°	46.1	45.5	46.9	46.9	48.1	49.5	50.3	51.5	53.5	57.7	65.4
80°	31.3	31.3	31.6	32.4	32.1	32.7	34.1	35.3	37.8	40.1	42.4
82.5°	22.2	21.9	22.2	22.2	22.2	22.8	23.0	23.0	23.6	24.5	25.9
85°	13.1	13.1	13.4	13.4	13.7	13.7	13.9	13.9	13.9	14.2	14.5
87.5°	6.3	6.0	5.7	5.7	6.0	6.5	6.3	6.0	6.0	6.0	6.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	716.7	714.7	711.0	707.6	703.3	699.6	697.0	693.9	689.9	685.1	681.1
5°	743.4	737.1	728.9	721.8	712.7	705.6	698.2	691.1	684.0	674.8	666.9
7.5°	773.0	760.7	749.4	734.6	721.2	709.5	698.2	686.5	675.4	662.9	651.2
10°	799.7	784.1	766.7	746.8	728.6	711.3	695.3	679.7	663.2	648.7	633.0
12.5°	824.7	803.4	782.9	756.5	733.7	711.5	690.2	669.7	651.8	631.9	614.8
15°	837.8	817.9	795.7	765.0	734.6	709.0	685.1	659.8	637.9	616.8	598.1
17.5°	845.5	824.4	798.8	769.0	736.3	704.4	674.3	647.3	622.2	598.1	577.3
20°	842.1	821.9	795.4	767.3	731.7	698.2	664.9	634.2	605.5	579.6	557.1
22.5°	833.8	812.8	787.5	757.3	724.0	687.9	651.8	618.5	588.1	561.1	536.1
25°	825.6	797.1	771.0	742.0	709.8	674.6	637.9	601.8	569.6	542.3	515.6
27.5°	817.6	783.2	750.8	722.9	688.5	656.6	620.8	583.6	550.0	522.4	495.1
30°	806.0	766.1	729.5	696.7	664.6	634.8	601.2	565.1	530.4	501.7	473.8
32.5°	791.4	748.5	707.3	668.3	637.6	608.0	578.4	544.3	510.8	480.9	452.5
35°	779.8	725.8	682.0	641.9	607.5	578.7	551.4	523.6	489.7	459.0	431.4
37.5°	763.6	704.1	654.7	610.9	575.0	546.6	524.7	498.2	466.7	436.8	411.2
40°	749.1	680.3	624.8	581.6	543.5	513.0	492.8	471.2	443.1	415.5	389.9
42.5°	729.7	658.4	594.7	549.2	510.8	481.8	461.3	443.1	420.6	395.0	367.1
45°	703.3	628.8	563.7	515.3	476.6	447.9	428.9	412.1	394.2	370.3	346.4
47.5°	671.7	600.6	532.1	478.9	441.7	414.6	395.9	381.9	368.8	348.1	323.9
50°	632.2	564.2	497.7	446.5	406.1	380.8	363.4	352.9	341.3	322.8	303.4
52.5°	585.6	526.7	461.8	409.2	371.7	348.4	331.9	321.4	312.3	298.0	279.8
55°	536.1	482.9	423.2	375.7	340.7	316.8	300.9	290.9	285.2	272.4	257.9
57.5°	480.0	439.1	385.1	338.7	307.1	283.2	271.3	262.5	255.9	246.6	235.8
60°	420.9	394.2	347.0	303.4	275.0	252.5	242.0	234.9	228.9	221.3	213.3
62.5°	360.9	343.3	303.7	267.9	242.3	224.4	214.7	208.5	201.3	196.8	189.1
65°	308.6	291.2	262.8	233.5	209.3	194.2	187.1	181.4	177.2	171.5	166.1
67.5°	250.5	242.6	221.5	199.6	182.0	167.5	161.2	156.7	151.9	148.4	144.5
70°	197.9	194.5	180.6	167.2	151.0	141.9	136.2	134.5	128.3	124.8	122.3
72.5°	151.3	150.2	143.6	135.4	125.1	117.5	112.3	110.3	106.9	104.4	102.9
75°	110.1	110.6	109.2	103.2	99.0	93.8	89.3	88.2	85.3	83.0	81.6
77.5°	75.1	77.9	77.4	77.1	75.1	71.4	69.4	68.5	65.4	64.6	64.3
80°	47.8	50.9	53.7	53.5	52.9	52.0	50.6	49.8	48.3	47.5	46.9
82.5°	27.9	30.7	33.0	35.0	35.0	34.1	33.3	33.0	33.0	32.4	32.4
85°	15.1	15.6	16.5	18.5	19.9	20.2	19.9	19.6	18.8	19.1	19.3
87.5°	6.5	6.5	6.8	6.8	6.5	8.0	8.8	9.1	8.5	8.0	7.4
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	678.3	674.3	671.4	665.7	661.8	660.1	656.9	656.1	659.2	656.9	656.6
5°	660.9	652.7	646.1	639.6	632.5	627.9	621.1	620.0	618.3	615.7	615.1
7.5°	640.7	630.5	622.8	612.0	603.2	596.1	587.5	584.1	582.4	579.3	574.2
10°	620.2	607.5	596.1	585.3	573.6	564.2	555.7	549.2	544.9	540.9	539.2
12.5°	600.1	587.0	571.6	558.0	544.6	533.8	524.1	520.4	515.6	510.8	506.2
15°	579.0	561.7	545.7	530.7	519.6	508.2	499.1	492.8	485.7	483.7	476.1
17.5°	556.5	540.3	521.6	505.4	492.8	480.9	470.9	463.6	458.1	450.5	446.8
20°	535.8	515.6	497.4	482.9	468.7	453.9	443.6	437.7	432.6	426.6	423.7
22.5°	513.6	494.0	475.2	457.6	443.1	428.6	422.0	415.8	409.8	404.4	400.4
25°	492.0	472.1	452.5	434.8	419.8	409.2	400.7	393.6	390.5	385.1	381.1
27.5°	470.4	449.3	429.4	410.9	399.3	388.8	381.9	376.2	370.3	365.4	361.7
30°	449.6	428.0	405.8	391.9	379.4	369.4	361.7	356.3	352.1	347.8	345.2
32.5°	428.9	406.4	387.3	372.0	360.3	352.1	344.1	339.0	334.4	329.6	326.5
35°	406.4	383.6	367.7	352.9	341.3	333.3	327.9	320.5	316.8	313.4	310.3
37.5°	386.2	364.6	347.0	334.2	323.3	315.7	308.6	304.9	300.0	297.2	294.6
40°	363.4	344.1	328.5	314.8	307.4	298.6	292.1	286.9	283.5	279.6	276.7
42.5°	343.0	325.3	310.3	298.3	288.7	281.5	275.3	270.2	265.6	263.1	260.8
45°	323.9	306.0	291.2	279.8	271.3	264.2	257.7	255.1	249.4	246.0	244.9
47.5°	304.0	287.8	273.3	262.8	254.0	247.4	241.2	235.5	232.6	229.2	227.5
50°	283.8	268.5	255.1	244.9	236.3	228.9	223.2	219.8	215.6	212.4	210.2
52.5°	263.6	249.7	236.3	226.7	219.5	212.2	205.6	202.2	198.2	196.5	195.1
55°	244.6	229.5	218.1	208.5	200.8	194.0	188.0	184.6	182.0	180.0	179.4
57.5°	222.7	210.4	199.6	191.1	182.9	176.3	170.9	167.8	165.5	165.2	163.2
60°	201.3	190.5	180.9	171.5	164.7	158.7	154.1	150.4	148.2	147.9	147.3
62.5°	180.0	169.8	161.0	153.0	147.0	141.3	137.1	132.8	131.7	130.0	128.5
65°	159.0	149.6	142.2	135.7	129.1	124.3	120.0	117.5	114.3	112.6	109.5
67.5°	138.2	130.5	123.4	118.0	112.6	107.8	104.1	100.4	98.1	96.7	94.1
70°	117.7	112.0	104.9	99.0	95.0	91.3	88.4	84.2	82.8	81.6	80.5
72.5°	98.4	93.6	87.9	83.3	79.3	75.9	72.5	71.1	69.7	68.5	68.0
75°	80.5	75.6	70.5	67.1	64.3	61.4	59.7	58.3	57.7	57.4	56.3
77.5°	62.6	59.7	55.5	52.3	50.3	49.2	47.5	46.9	47.2	45.8	45.5
80°	45.2	43.8	40.4	39.2	37.8	36.7	35.8	34.4	33.0	32.4	31.6
82.5°	30.7	29.3	28.4	26.4	25.3	24.7	23.9	23.6	24.2	23.3	23.0
85°	17.9	16.5	15.9	15.6	15.1	15.6	15.4	15.1	14.8	14.5	14.8
87.5°	7.1	7.1	6.8	7.4	6.5	6.8	6.8	6.5	6.5	6.5	6.3
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: P242904

CATALOG NUMBER: S125RDR-S610D927-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	692.8	692.8	692.8	692.8
2.5°	656.4	653.2	652.4	653.5
5°	612.3	609.4	610.9	610.3
7.5°	575.0	571.3	567.1	568.2
10°	535.5	532.7	531.0	532.4
12.5°	502.2	500.8	499.4	498.2
15°	472.7	469.2	467.8	464.1
17.5°	444.2	443.1	439.4	436.8
20°	419.5	418.3	414.6	416.9
22.5°	399.0	396.2	395.6	394.2
25°	379.9	376.2	374.8	373.1
27.5°	360.6	358.6	356.6	356.1
30°	341.8	339.8	338.4	338.4
32.5°	325.1	323.6	322.2	321.9
35°	308.8	306.6	306.0	304.3
37.5°	291.8	289.8	289.8	290.1
40°	275.6	274.1	273.9	271.9
42.5°	258.2	257.7	256.5	255.9
45°	242.9	240.9	240.9	239.5
47.5°	226.7	224.9	225.2	223.5
50°	210.4	209.6	209.3	208.7
52.5°	194.2	194.0	195.4	194.0
55°	180.0	179.2	180.9	179.2
57.5°	163.2	162.7	164.4	163.2
60°	146.7	145.0	145.9	146.2
62.5°	127.1	126.3	126.8	125.1
65°	108.9	108.1	106.9	106.4
67.5°	94.7	92.1	92.1	92.7
70°	78.8	78.8	78.5	78.5
72.5°	67.7	67.4	66.8	66.5
75°	56.3	56.6	56.0	55.7
77.5°	44.1	42.7	43.2	42.7
80°	31.6	31.3	32.1	31.3
82.5°	23.3	23.0	23.3	22.8
85°	15.1	14.8	14.5	14.8
87.5°	6.5	6.3	6.3	6.3
90°	0.0	0.0	0.0	0.0

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