

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: P334371

Luminaire Tested: **S125RDW-S610D830-4F0-1E-UDD-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334371
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: S125RDW-S610D830-4F0-1E-UDD-A
Description: DEFINE 5 REGRESSED DIRECT LED LUMINAIRE, ASYMMETRIC DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 610 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2135.6 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 4' x L: 0.42' x H: 0')
CIE Type: Direct

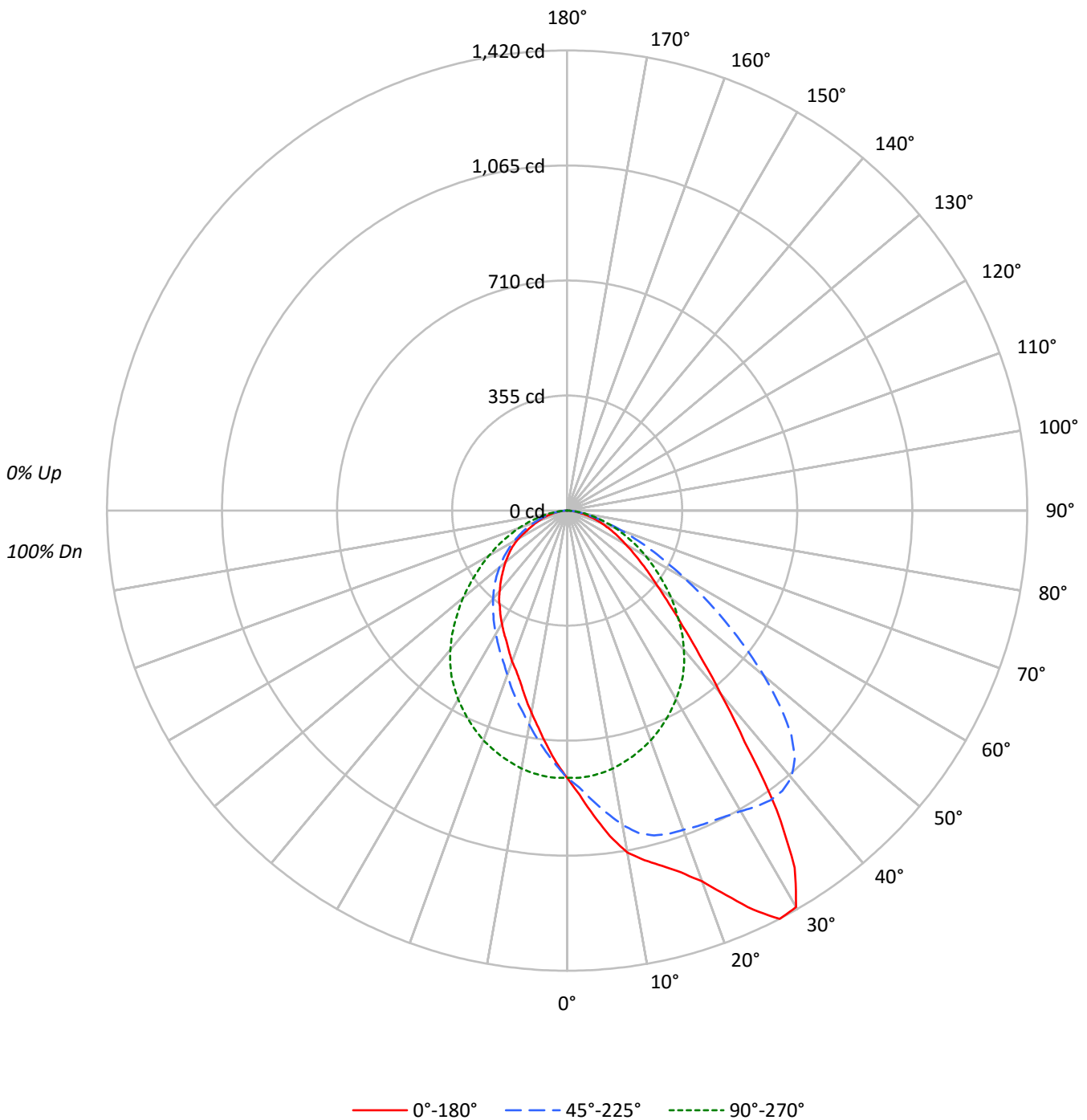
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5324	5324	5324
5°	6125	5330	4707
10°	7026	5303	4154
15°	7588	5249	3692
20°	8367	5186	3409
25°	9684	5102	3163
30°	10537	5014	3003
35°	8889	4911	2855
40°	6208	4727	2727
45°	4605	4478	2602
50°	3671	4219	2496
55°	3117	3897	2401
60°	2692	3610	2246
65°	2399	3299	1933
70°	2109	3021	1764
75°	1824	2618	1654
80°	1384	2202	1384
85°	1156	1727	1304



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.0	3.7
10°-20°	231.7	10.9
20°-30°	367.4	17.2
30°-40°	444.0	20.8
40°-50°	395.4	18.5
50°-60°	303.2	14.2
60°-70°	196.9	9.2
70°-80°	95.5	4.5
80°-90°	22.5	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°	678.2	31.8
0°-40°	1122.2	52.5
0°-60°	1820.7	85.3
0°-90°	2135.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2135.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	824	824	824	824	824	
5°	945	898	822	747	726	94
15°	1135	1038	785	605	552	325
25°	1359	1057	716	487	444	626
35°	1127	1092	623	397	362	683
45°	504	978	490	314	285	400
55°	277	594	346	231	213	251
65°	157	283	216	148	126	156
75°	73	99	105	73	66	78
85°	16	17	23	19	18	18
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°	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3
2.5°	877.7	877.0	878.4	874.7	875.0	869.3	869.3	864.9	859.1	854.7	852.7
5°	944.7	945.4	944.0	939.0	935.6	930.5	924.8	914.6	906.1	898.0	891.6
7.5°	1013.1	1013.7	1009.3	1008.3	999.5	994.1	981.3	968.1	956.6	941.3	930.5
10°	1071.3	1070.9	1066.2	1062.5	1055.0	1045.5	1033.0	1016.8	1001.6	984.6	968.4
12.5°	1105.1	1104.1	1103.4	1098.7	1091.9	1083.8	1073.6	1057.7	1038.1	1019.2	999.5
15°	1134.9	1132.5	1128.1	1122.4	1112.5	1102.7	1090.9	1076.7	1058.7	1037.8	1020.2
17.5°	1170.7	1171.1	1164.3	1158.2	1145.4	1129.1	1111.5	1089.9	1066.9	1045.5	1028.0
20°	1217.4	1216.4	1209.7	1194.1	1178.9	1157.2	1136.2	1108.1	1078.4	1048.3	1024.9
22.5°	1284.4	1281.4	1274.3	1252.6	1226.9	1197.5	1162.6	1126.8	1089.2	1054.0	1021.5
25°	1358.9	1356.8	1343.0	1319.3	1286.1	1243.2	1201.2	1154.2	1102.4	1057.4	1020.2
27.5°	1420.5	1416.4	1403.9	1381.5	1349.1	1302.7	1244.8	1183.9	1122.4	1063.1	1012.0
30°	1413.0	1418.1	1416.7	1407.6	1384.6	1344.0	1291.5	1220.8	1144.0	1071.3	1007.3
32.5°	1306.8	1311.2	1326.4	1351.1	1358.5	1348.4	1312.5	1248.6	1168.4	1083.1	1003.6
35°	1127.4	1133.5	1156.5	1192.7	1240.1	1279.7	1287.8	1252.6	1181.2	1092.2	999.9
37.5°	899.4	939.0	954.5	991.4	1065.8	1137.9	1200.5	1214.7	1176.2	1090.2	995.5
40°	736.3	744.4	778.9	821.9	882.1	957.9	1057.7	1129.8	1132.2	1076.7	981.3
42.5°	603.6	614.5	635.4	667.6	717.0	792.8	896.7	997.5	1052.0	1039.5	962.6
45°	504.2	511.9	529.2	555.6	595.2	657.8	746.4	856.4	943.7	977.9	926.4
47.5°	426.3	430.4	446.3	467.6	498.1	545.4	617.5	717.0	820.9	890.2	876.7
50°	365.4	370.2	381.7	396.9	421.6	460.2	515.0	594.5	702.4	792.1	810.0
52.5°	318.1	321.8	327.9	342.1	361.4	388.8	430.4	500.4	594.8	691.6	739.0
55°	276.8	279.5	285.2	293.4	309.6	330.9	369.2	418.9	497.4	593.5	654.4
57.5°	241.6	242.9	246.3	254.5	266.3	282.2	311.3	356.6	413.5	503.8	570.8
60°	208.4	209.8	214.5	219.6	228.4	242.6	264.3	293.7	347.8	419.2	487.2
62.5°	182.0	182.7	184.1	189.1	196.6	206.7	222.6	245.3	285.6	346.1	409.4
65°	157.0	157.3	158.0	162.1	166.8	174.9	186.1	203.0	235.5	282.9	339.7
67.5°	132.0	132.6	135.0	136.4	142.1	146.2	153.3	166.8	191.9	225.7	271.7
70°	111.7	111.3	113.7	115.4	117.1	122.1	126.5	137.0	151.2	175.6	212.5
72.5°	92.7	91.7	92.4	92.7	95.1	98.1	102.5	107.9	118.1	133.0	159.0
75°	73.1	73.4	73.4	74.1	75.8	77.1	78.5	81.9	88.0	99.1	114.4
77.5°	54.8	54.1	55.8	55.8	57.2	58.9	59.9	61.2	63.6	68.7	77.8
80°	37.2	37.2	37.6	38.6	38.2	38.9	40.6	42.0	45.0	47.7	50.4
82.5°	26.4	26.1	26.4	26.4	26.4	27.1	27.4	27.4	28.1	29.1	30.8
85°	15.6	15.6	15.9	15.9	16.2	16.2	16.6	16.6	16.6	16.9	17.3
87.5°	7.4	7.1	6.8	6.8	7.1	7.8	7.4	7.1	7.1	7.1	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3
2.5°	852.7	850.3	845.9	841.9	836.8	832.4	829.3	825.6	820.9	815.1	810.4
5°	884.5	877.0	867.2	858.8	847.9	839.5	830.7	822.2	813.8	802.9	793.5
7.5°	919.7	905.1	891.6	874.0	858.1	844.2	830.7	816.8	803.6	788.7	774.9
10°	951.5	932.9	912.2	888.5	866.9	846.3	827.3	808.7	789.1	771.8	753.2
12.5°	981.3	955.9	931.5	900.1	873.0	846.6	821.2	796.8	775.5	751.8	731.5
15°	996.8	973.1	946.7	910.2	874.0	843.5	815.1	785.0	759.0	733.9	711.6
17.5°	1006.0	980.9	950.5	914.9	876.0	838.1	802.3	770.1	740.3	711.6	686.9
20°	1001.9	977.9	946.4	912.9	870.6	830.7	791.1	754.6	720.4	689.6	662.9
22.5°	992.1	967.0	936.9	901.1	861.5	818.5	775.5	735.9	699.7	667.6	637.8
25°	982.3	948.4	917.3	882.8	844.6	802.6	759.0	716.0	677.7	645.3	613.5
27.5°	972.8	931.9	893.3	860.1	819.2	781.3	738.7	694.3	654.4	621.6	589.1
30°	958.9	911.6	867.9	829.0	790.8	755.2	715.3	672.3	631.1	596.9	563.7
32.5°	941.7	890.6	841.5	795.2	758.6	723.4	688.2	647.6	607.7	572.2	538.3
35°	927.8	863.5	811.4	763.7	722.7	688.6	656.1	622.9	582.7	546.1	513.3
37.5°	908.5	837.8	778.9	726.8	684.2	650.3	624.3	592.8	555.3	519.7	489.3
40°	891.3	809.4	743.4	692.0	646.6	610.4	586.4	560.7	527.2	494.4	463.9
42.5°	868.2	783.3	707.5	653.4	607.7	573.2	548.8	527.2	500.4	470.0	436.8
45°	836.8	748.1	670.6	613.1	567.1	532.9	510.3	490.3	469.0	440.6	412.1
47.5°	799.2	714.6	633.1	569.8	525.5	493.3	471.0	454.4	438.9	414.2	385.4
50°	752.2	671.3	592.1	531.2	483.2	453.1	432.4	419.9	406.0	384.0	361.0
52.5°	696.7	626.7	549.5	486.9	442.2	414.5	394.9	382.4	371.5	354.6	333.0
55°	637.8	574.5	503.5	447.0	405.4	376.9	358.0	346.1	339.4	324.2	306.9
57.5°	571.2	522.4	458.1	403.0	365.4	337.0	322.8	312.3	304.5	293.4	280.5
60°	500.8	469.0	412.8	361.0	327.2	300.5	287.9	279.5	272.4	263.2	253.8
62.5°	429.4	408.4	361.4	318.7	288.3	267.0	255.5	248.0	239.6	234.1	225.0
65°	367.1	346.5	312.6	277.8	249.0	231.1	222.6	215.9	210.8	204.0	197.6
67.5°	298.1	288.6	263.6	237.5	216.6	199.3	191.9	186.4	180.7	176.6	171.9
70°	235.5	231.4	214.9	199.0	179.7	168.8	162.1	160.0	152.6	148.5	145.5
72.5°	180.0	178.7	170.9	161.1	148.9	139.7	133.7	131.3	127.2	124.2	122.5
75°	130.9	131.6	129.9	122.8	117.8	111.7	106.2	104.9	101.5	98.8	97.1
77.5°	89.3	92.7	92.0	91.7	89.3	84.9	82.6	81.5	77.8	76.8	76.5
80°	56.8	60.6	64.0	63.6	62.9	61.9	60.2	59.2	57.5	56.5	55.8
82.5°	33.2	36.5	39.3	41.6	41.6	40.6	39.6	39.3	39.3	38.6	38.6
85°	17.9	18.6	19.6	22.0	23.7	24.0	23.7	23.3	22.3	22.7	23.0
87.5°	7.8	7.8	8.1	8.1	7.8	9.5	10.5	10.8	10.2	9.5	8.8
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°	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3	824.3
2.5°	807.0	802.3	798.9	792.1	787.4	785.3	781.6	780.6	784.3	781.6	781.3
5°	786.4	776.5	768.8	761.0	752.5	747.1	739.0	737.6	735.6	732.6	731.9
7.5°	762.3	750.2	741.0	728.2	717.7	709.2	699.1	695.0	693.0	689.2	683.2
10°	738.0	722.7	709.2	696.4	682.5	671.3	661.2	653.4	648.3	643.6	641.5
12.5°	713.9	698.4	680.1	663.9	648.0	635.1	623.6	619.2	613.5	607.7	602.3
15°	688.9	668.3	649.3	631.4	618.2	604.7	593.8	586.4	577.9	575.6	566.4
17.5°	662.2	642.9	620.6	601.3	586.4	572.2	560.3	551.5	545.1	536.0	531.6
20°	637.5	613.5	591.8	574.5	557.6	540.0	527.8	520.7	514.7	507.5	504.2
22.5°	611.1	587.7	565.4	544.4	527.2	509.9	502.1	494.7	487.6	481.2	476.4
25°	585.4	561.7	538.3	517.4	499.4	486.9	476.8	468.3	464.6	458.1	453.4
27.5°	559.7	534.6	510.9	488.9	475.1	462.5	454.4	447.7	440.6	434.8	430.4
30°	535.0	509.2	482.8	466.3	451.4	439.5	430.4	424.0	418.9	413.8	410.8
32.5°	510.3	483.5	460.9	442.6	428.7	418.9	409.4	403.3	397.9	392.2	388.4
35°	483.5	456.5	437.5	419.9	406.0	396.6	390.1	381.3	376.9	372.9	369.2
37.5°	459.5	433.8	412.8	397.6	384.7	375.6	367.1	362.7	357.0	353.6	350.5
40°	432.4	409.4	390.8	374.6	365.8	355.3	347.5	341.4	337.3	332.6	329.2
42.5°	408.1	387.1	369.2	354.9	343.4	335.0	327.5	321.4	316.0	313.0	310.3
45°	385.4	364.1	346.5	333.0	322.8	314.3	306.6	303.5	296.7	292.7	291.3
47.5°	361.7	342.4	325.2	312.6	302.2	294.4	286.9	280.2	276.8	272.7	270.7
50°	337.7	319.4	303.5	291.3	281.2	272.4	265.6	261.6	256.5	252.8	250.1
52.5°	313.7	297.1	281.2	269.7	261.2	252.4	244.6	240.6	235.8	233.8	232.1
55°	291.0	273.1	259.5	248.0	238.9	230.8	223.7	219.6	216.6	214.2	213.5
57.5°	264.9	250.4	237.5	227.4	217.6	209.8	203.4	199.6	196.9	196.6	194.2
60°	239.6	226.7	215.2	204.0	195.9	188.8	183.4	179.0	176.3	175.9	175.3
62.5°	214.2	202.0	191.5	182.0	174.9	168.2	163.1	158.0	156.7	154.6	152.9
65°	189.1	178.0	169.2	161.4	153.6	147.9	142.8	139.7	136.0	134.0	130.3
67.5°	164.4	155.3	146.9	140.4	134.0	128.2	123.8	119.4	116.7	115.0	112.0
70°	140.1	133.3	124.9	117.8	113.0	108.6	105.2	100.2	98.5	97.1	95.8
72.5°	117.1	111.3	104.6	99.1	94.4	90.3	86.3	84.6	82.9	81.5	80.9
75°	95.8	90.0	83.9	79.9	76.5	73.1	71.1	69.4	68.7	68.3	67.0
77.5°	74.4	71.1	66.0	62.3	59.9	58.5	56.5	55.8	56.2	54.5	54.1
80°	53.8	52.1	48.0	46.7	45.0	43.6	42.6	40.9	39.3	38.6	37.6
82.5°	36.5	34.9	33.8	31.5	30.1	29.4	28.4	28.1	28.8	27.7	27.4
85°	21.3	19.6	18.9	18.6	17.9	18.6	18.3	17.9	17.6	17.3	17.6
87.5°	8.5	8.5	8.1	8.8	7.8	8.1	8.1	7.8	7.8	7.8	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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CATALOG NUMBER: S125RDW-S610D830-4F0-1E-UDD-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	824.3	824.3	824.3	824.3
2.5°	780.9	777.2	776.2	777.6
5°	728.5	725.1	726.8	726.1
7.5°	684.2	679.8	674.7	676.1
10°	637.1	633.8	631.7	633.4
12.5°	597.6	595.9	594.2	592.8
15°	562.4	558.3	556.6	552.2
17.5°	528.5	527.2	522.8	519.7
20°	499.1	497.7	493.3	496.0
22.5°	474.7	471.3	470.7	469.0
25°	452.1	447.7	446.0	443.9
27.5°	429.0	426.7	424.3	423.6
30°	406.7	404.3	402.7	402.7
32.5°	386.8	385.1	383.4	383.0
35°	367.5	364.8	364.1	362.1
37.5°	347.2	344.8	344.8	345.1
40°	327.9	326.2	325.8	323.5
42.5°	307.2	306.6	305.2	304.5
45°	289.0	286.6	286.6	284.9
47.5°	269.7	267.6	268.0	266.0
50°	250.4	249.4	249.0	248.4
52.5°	231.1	230.8	232.5	230.8
55°	214.2	213.2	215.2	213.2
57.5°	194.2	193.5	195.6	194.2
60°	174.6	172.6	173.6	173.9
62.5°	151.2	150.2	150.9	148.9
65°	129.6	128.6	127.2	126.5
67.5°	112.7	109.6	109.6	110.3
70°	93.7	93.7	93.4	93.4
72.5°	80.5	80.2	79.5	79.2
75°	67.0	67.3	66.7	66.3
77.5°	52.4	50.8	51.4	50.8
80°	37.6	37.2	38.2	37.2
82.5°	27.7	27.4	27.7	27.1
85°	17.9	17.6	17.3	17.6
87.5°	7.8	7.4	7.4	7.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)