

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: P333549-940

Luminaire Tested: **S125RDIP-S610D1205U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333549-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIP-S610D1205U940-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5976.0 lumens  
Efficiency: N/A  
Efficacy: 121.0 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

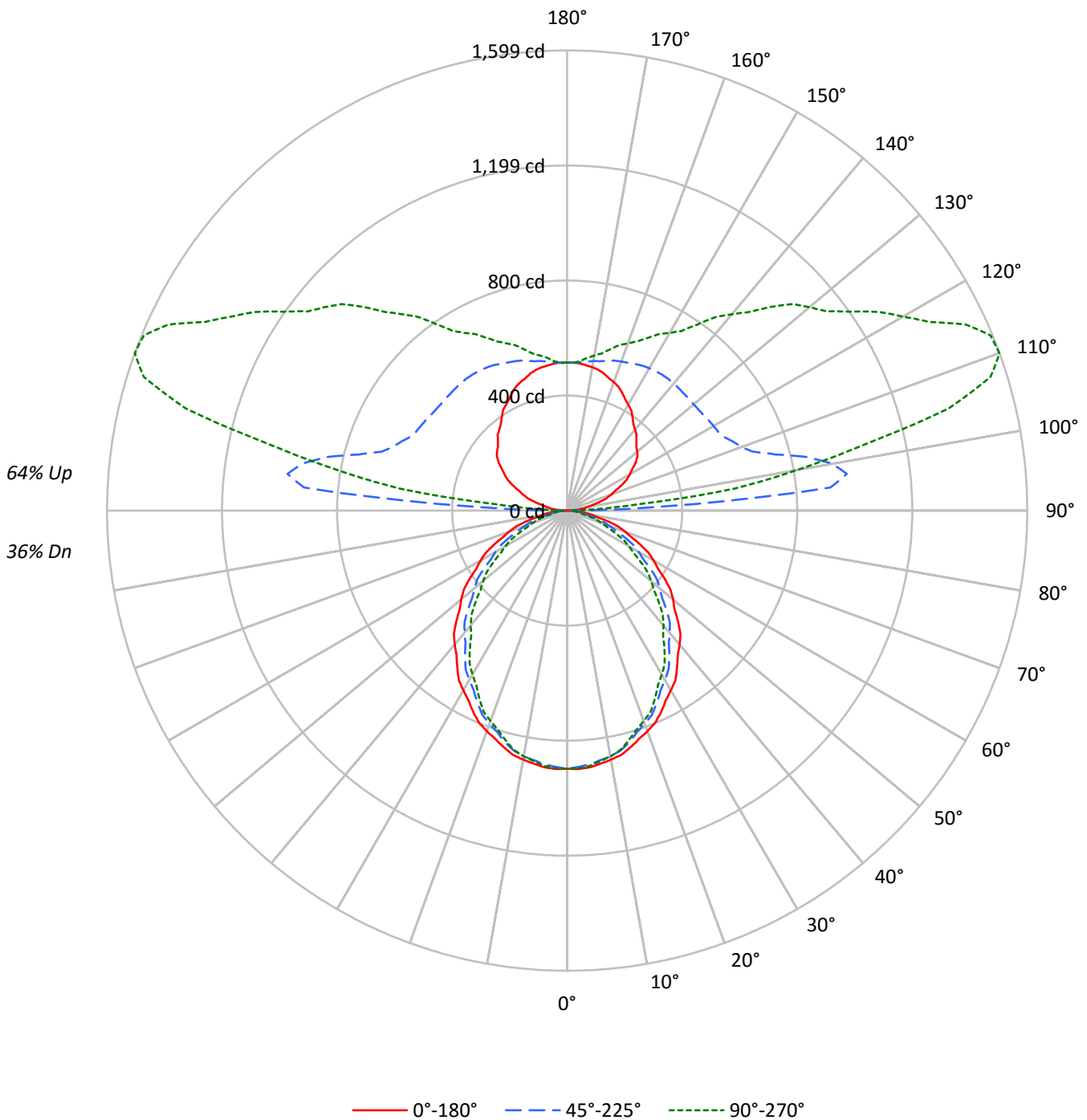
Input Watts (W): 49.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	95	91	87	83	86	82	79	76	66	64	62	52	50	49	38	37	36	30
2	86	79	73	68	78	72	67	63	58	55	52	45	43	41	34	32	31	26
3	79	70	63	57	71	63	57	52	51	47	43	40	37	35	30	28	26	22
4	72	62	54	48	65	56	50	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	24	22	20	16
6	61	49	41	36	55	45	38	33	37	32	28	29	25	23	22	20	18	14
7	56	44	37	31	51	41	34	29	33	28	24	26	23	20	20	18	16	13
8	52	40	33	28	47	37	30	26	30	25	22	24	21	18	18	16	14	12
9	48	37	29	24	44	34	27	23	28	23	19	22	19	16	17	15	13	10
10	45	34	27	22	41	31	25	20	25	21	17	21	17	14	16	13	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5794	5794	5794
5°	5806	5741	5776
10°	5762	5687	5687
15°	5695	5572	5526
20°	5606	5411	5346
25°	5504	5253	5137
30°	5376	5068	4906
35°	5245	4877	4647
40°	5123	4678	4392
45°	4975	4455	4116
50°	4827	4214	3826
55°	4654	3983	3518
60°	4481	3702	3185
65°	4276	3376	2806
70°	4043	2968	2417
75°	3721	2500	2011
80°	3277	1967	1689
85°	2764	1608	1504



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.3	1.4
10°-20°	235.7	3.9
20°-30°	341.8	5.7
30°-40°	389.6	6.5
40°-50°	379.7	6.4
50°-60°	319.6	5.3
60°-70°	224.1	3.7
70°-80°	115.2	1.9
80°-90°	32.0	0.5
90°-100°	372.5	6.2
100°-110°	800.8	13.4
110°-120°	751.5	12.6
120°-130°	609.1	10.2
130°-140°	488.8	8.2
140°-150°	368.8	6.2
150°-160°	259.6	4.3
160°-170°	153.0	2.6
170°-180°	49.8	0.8
0°-30°	661.9	11.1
0°-40°	1051.5	17.6
0°-60°	1750.9	29.3
0°-90°	2122.0	35.5
90°-120°	1924.8	32.2
90°-150°	3391.5	56.8
90°-180°	3854.0	64.5
0°-180°	5976.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	896	893	886	892	891	85
15°	852	847	833	832	826	240
25°	772	761	737	728	721	355
35°	665	648	619	600	589	416
45°	545	524	488	462	451	420
55°	413	391	354	324	312	370
65°	280	256	221	195	184	277
75°	149	128	100	86	81	158
85°	37	26	22	21	20	42
90°	1	9	17	22	24	4
95°	34	101	918	416	244	36
105°	117	164	751	1479	1373	123
115°	209	252	603	1300	1529	206
125°	290	340	578	1034	1205	257
135°	340	409	574	867	1001	264
145°	396	453	576	718	790	248
155°	452	486	562	635	662	208
165°	493	507	539	571	580	139
175°	513	513	517	523	521	49
180°	514	514	514	514	514	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1
2.5°	898.7	898.3	898.0	897.6	897.2	896.4	895.2	894.0	892.8	891.6	892.8
5°	895.6	895.1	894.5	893.9	893.2	892.2	890.5	888.9	887.2	885.5	887.0
7.5°	886.9	886.3	885.7	885.1	884.6	883.3	881.3	879.3	877.4	875.3	876.4
10°	878.7	878.2	877.8	877.4	876.9	875.7	873.5	871.5	869.3	867.2	867.6
12.5°	869.5	869.0	868.3	867.8	867.2	865.5	862.7	859.9	857.0	854.2	854.5
15°	851.7	850.7	849.8	848.9	848.0	846.0	842.8	839.6	836.5	833.3	833.2
17.5°	831.4	830.1	828.7	827.3	825.9	823.2	819.2	815.3	811.3	807.4	806.6
20°	815.7	814.2	812.7	811.2	809.7	806.6	801.7	796.9	792.1	787.3	786.5
22.5°	798.3	796.8	795.4	793.9	792.4	789.1	784.0	779.0	773.9	768.8	767.4
25°	772.4	770.1	767.9	765.6	763.3	759.4	753.9	748.2	742.7	737.1	735.2
27.5°	742.5	739.9	737.1	734.3	731.6	727.3	721.3	715.3	709.4	703.4	700.6
30°	720.9	718.0	715.2	712.3	709.4	704.8	698.5	692.2	685.9	679.6	676.1
32.5°	699.7	696.4	693.0	689.7	686.3	681.4	675.0	668.6	662.1	655.7	651.8
35°	665.3	661.7	658.1	654.5	650.9	645.7	638.9	632.1	625.4	618.6	614.2
37.5°	631.6	627.1	622.8	618.4	614.0	608.3	601.3	594.3	587.4	580.3	575.2
40°	607.7	603.2	598.7	594.1	589.7	583.8	576.6	569.4	562.1	554.9	549.2
42.5°	582.8	578.2	573.5	568.9	564.3	558.2	550.7	543.2	535.8	528.3	522.8
45°	544.7	540.4	536.0	531.6	527.3	520.9	512.6	504.4	496.1	487.8	481.8
47.5°	505.3	500.7	496.1	491.5	486.9	480.4	472.1	463.7	455.4	447.0	440.9
50°	480.4	475.4	470.4	465.5	460.5	453.7	445.1	436.6	427.9	419.4	413.0
52.5°	453.3	448.2	443.1	438.0	432.9	426.3	418.2	410.1	402.0	393.9	387.1
55°	413.3	408.5	403.7	398.9	394.0	387.4	379.0	370.5	362.1	353.7	346.9
57.5°	372.9	367.7	362.6	357.5	352.3	345.6	337.5	329.4	321.3	313.2	306.5
60°	346.9	341.6	336.4	331.1	325.8	319.1	310.9	302.8	294.7	286.6	280.0
62.5°	319.2	314.2	309.2	304.2	299.2	292.5	284.3	276.0	267.8	259.5	253.3
65°	279.8	274.7	269.6	264.5	259.3	252.8	244.8	236.8	228.8	220.9	214.8
67.5°	240.7	235.5	230.4	225.3	220.2	213.8	206.2	198.5	190.8	183.2	177.7
70°	214.1	209.0	203.8	198.8	193.6	187.3	179.8	172.3	164.7	157.2	152.5
72.5°	188.1	183.1	178.1	173.1	168.1	162.0	155.0	147.9	140.9	133.8	129.6
75°	149.1	144.5	140.0	135.5	131.0	125.6	119.2	112.9	106.6	100.2	96.9
77.5°	110.3	106.6	103.1	99.4	95.9	91.5	86.4	81.4	76.3	71.2	68.9
80°	88.1	84.4	80.9	77.2	73.7	69.7	65.5	61.3	57.1	52.9	51.5
82.5°	66.4	63.1	59.9	56.6	53.4	50.3	47.4	44.5	41.6	38.8	38.2
85°	37.3	34.5	31.8	29.2	26.4	24.7	23.9	23.2	22.5	21.7	21.5
87.5°	12.7	12.0	11.6	11.1	10.8	10.7	10.8	11.1	11.1	11.4	11.7
90°	1.1	2.1	4.1	6.2	8.3	10.3	11.4	13.5	14.5	16.6	17.7
92.5°	12.7	15.3	24.1	36.9	54.8	85.0	141.5	236.5	339.5	334.0	270.5
95°	34.2	35.2	43.5	54.9	77.7	124.3	235.2	463.2	749.1	918.0	898.3
97.5°	56.8	58.1	63.8	75.3	95.8	129.3	202.7	369.7	669.0	980.3	1136.7
100°	72.5	74.6	78.7	90.2	109.9	140.9	201.0	335.7	596.8	935.6	1194.6
102.5°	90.0	91.2	94.5	106.7	124.8	155.0	208.5	321.6	542.1	856.8	1159.8
105°	117.1	117.1	122.3	132.6	149.2	178.3	223.8	316.0	489.0	751.2	1048.6
107.5°	143.6	145.7	150.6	159.2	176.4	202.4	246.6	325.6	466.6	678.4	935.0
110°	162.6	164.8	168.9	178.3	193.8	220.7	263.1	334.7	460.0	644.4	870.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	181.7	183.8	187.1	196.4	212.0	238.1	278.9	346.3	460.0	624.6	822.2
115°	209.3	211.3	214.5	223.8	239.3	265.3	303.6	363.6	463.2	603.1	769.8
117.5°	234.2	237.3	240.6	249.9	267.5	292.6	328.9	383.6	470.0	592.5	738.5
120°	250.7	253.9	258.0	267.3	284.9	310.9	347.1	396.8	476.6	587.5	721.1
122.5°	268.1	270.5	273.8	283.0	302.4	328.2	364.5	411.8	482.4	583.4	706.2
125°	290.1	292.2	297.4	306.7	326.4	353.3	387.5	432.0	492.1	578.2	685.9
127.5°	307.3	310.4	317.1	328.9	349.8	376.7	409.7	450.8	503.1	575.7	667.3
130°	318.1	321.2	329.5	343.0	364.7	391.6	423.7	463.2	509.8	574.0	654.9
132.5°	326.4	330.3	340.3	355.4	378.0	404.9	437.0	473.9	517.2	574.0	644.9
135°	339.8	344.0	356.4	373.0	394.8	422.8	454.9	489.0	527.4	574.0	633.1
137.5°	356.9	360.0	371.6	388.2	409.5	438.3	467.5	500.2	536.7	575.2	622.5
140°	366.8	369.9	382.4	399.0	418.6	446.6	476.6	507.7	540.8	576.0	617.5
142.5°	378.4	380.7	392.3	408.8	427.8	454.1	482.4	511.8	543.3	576.9	613.4
145°	395.8	397.9	408.2	422.8	441.4	465.2	492.1	518.1	546.1	576.0	607.2
147.5°	414.0	415.3	424.2	437.7	453.8	474.7	498.4	521.8	547.1	573.4	600.7
150°	424.8	426.9	434.2	447.6	462.1	479.7	502.5	524.3	547.1	570.9	595.8
152.5°	436.4	437.7	444.1	455.9	469.6	485.5	506.7	525.9	546.3	567.6	590.0
155°	451.7	451.7	458.0	468.3	478.7	493.2	510.8	527.4	543.9	561.6	580.2
157.5°	465.5	465.2	470.2	479.1	488.2	499.2	514.3	528.4	541.3	555.4	571.1
160°	474.6	473.5	477.7	484.9	493.2	502.5	516.0	528.4	538.8	551.3	563.7
162.5°	482.0	481.0	485.1	491.5	498.2	505.9	517.6	527.6	536.3	546.3	557.1
165°	493.2	491.2	494.3	499.4	503.5	509.8	518.1	526.4	532.5	538.8	547.1
167.5°	500.7	499.6	501.5	504.4	507.3	511.2	518.1	523.9	526.7	531.5	537.3
170°	505.6	504.6	505.6	507.7	509.8	512.9	518.1	522.2	524.3	527.4	531.5
172.5°	509.0	507.1	508.1	510.1	511.4	512.9	517.2	520.6	520.9	522.5	525.8
175°	512.9	510.8	511.8	512.9	512.9	512.9	516.0	518.1	517.0	517.0	518.1
177.5°	514.8	513.1	513.1	513.9	513.1	513.1	514.8	515.6	513.9	513.9	514.8
180°	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1
2.5°	894.0	895.2	896.4	897.0	896.9	896.7	896.6	896.5
5°	888.5	890.0	891.5	892.2	891.8	891.5	891.3	890.9
7.5°	877.4	878.5	879.6	879.9	879.6	879.2	879.0	878.6
10°	868.1	868.5	869.1	869.1	868.5	868.1	867.6	867.2
12.5°	854.9	855.2	855.5	855.3	854.6	854.0	853.3	852.6
15°	833.0	832.9	832.8	832.0	830.6	829.3	828.0	826.5
17.5°	805.8	805.0	804.3	803.3	802.3	801.1	800.0	798.9
20°	785.8	785.0	784.3	783.2	781.9	780.5	779.2	777.8
22.5°	765.9	764.4	762.9	761.6	760.5	759.4	758.3	757.2
25°	733.3	731.3	729.3	727.5	725.9	724.2	722.6	720.9
27.5°	697.9	695.2	692.4	690.3	688.7	687.1	685.5	683.9
30°	672.6	669.1	665.7	663.3	661.9	660.6	659.2	657.9
32.5°	648.0	644.3	640.4	637.7	635.9	634.2	632.5	630.8
35°	609.8	605.5	601.1	597.9	595.8	593.6	591.6	589.4
37.5°	569.9	564.6	559.4	555.7	553.7	551.7	549.7	547.6
40°	543.4	537.7	532.0	528.2	526.5	524.6	522.8	521.0
42.5°	517.4	511.8	506.4	502.3	499.7	497.0	494.4	491.8
45°	475.7	469.8	463.7	459.6	457.4	455.0	452.8	450.6
47.5°	434.6	428.4	422.2	417.9	415.4	412.9	410.4	407.9
50°	406.7	400.4	394.0	389.8	387.5	385.3	383.0	380.8
52.5°	380.3	373.4	366.7	362.1	359.9	357.7	355.3	353.1
55°	340.1	333.3	326.5	322.0	319.6	317.2	314.8	312.4
57.5°	299.9	293.3	286.7	282.2	280.1	277.9	275.9	273.8
60°	273.3	266.7	260.1	255.7	253.4	251.1	248.9	246.6
62.5°	247.2	241.0	234.9	230.7	228.5	226.2	223.9	221.7
65°	208.8	202.8	196.8	192.6	190.4	188.2	185.8	183.6
67.5°	172.2	166.7	161.1	157.5	155.7	153.9	152.0	150.3
70°	147.8	143.2	138.5	135.3	133.5	131.7	129.8	128.0
72.5°	125.3	120.9	116.6	113.9	112.7	111.5	110.3	109.1
75°	93.6	90.3	87.0	84.8	83.8	82.8	81.7	80.6
77.5°	66.6	64.3	62.0	60.5	59.7	58.9	58.1	57.3
80°	50.1	48.8	47.4	46.6	46.3	46.0	45.7	45.4
82.5°	37.5	36.8	36.2	35.8	35.7	35.5	35.3	35.1
85°	21.4	21.2	21.0	21.0	20.8	20.6	20.5	20.3
87.5°	11.9	12.0	12.3	12.7	12.5	12.4	12.5	12.4
90°	18.6	19.7	20.7	22.8	22.8	22.8	23.8	23.8
92.5°	183.6	133.2	100.3	85.0	71.7	69.2	67.8	66.1
95°	744.9	587.5	460.0	373.0	299.4	268.3	260.1	243.5
97.5°	1109.5	999.1	874.9	753.9	689.8	631.9	601.8	588.5
100°	1274.4	1223.7	1117.0	1009.1	937.7	863.1	824.7	808.2
102.5°	1330.0	1361.3	1310.1	1237.2	1160.7	1107.6	1066.0	1053.6
105°	1297.3	1439.2	1484.8	1473.4	1440.2	1406.0	1385.3	1372.9
107.5°	1180.4	1369.8	1486.8	1541.0	1557.7	1557.6	1550.7	1542.4
110°	1094.1	1291.0	1437.1	1525.2	1571.8	1591.5	1598.7	1598.7





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CATALOG NUMBER: S125RDIP-S610D1205U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1026.2	1213.1	1360.8	1464.6	1532.9	1566.6	1584.7	1592.1
115°	940.8	1101.4	1243.3	1356.3	1437.1	1486.8	1515.8	1529.3
117.5°	885.6	1024.1	1146.4	1250.0	1330.8	1382.2	1411.0	1419.2
120°	855.9	980.2	1094.1	1185.4	1262.0	1311.7	1339.7	1348.0
122.5°	833.5	948.7	1050.3	1135.6	1204.0	1249.6	1277.6	1285.0
125°	800.9	906.6	996.8	1071.4	1129.4	1171.9	1194.6	1205.1
127.5°	767.8	866.4	950.6	1020.4	1073.0	1110.5	1132.1	1136.7
130°	747.1	838.2	919.1	986.4	1038.2	1072.4	1093.1	1099.3
132.5°	726.3	811.7	885.0	949.9	1001.7	1035.9	1055.0	1062.0
135°	699.4	770.9	837.2	896.3	941.8	976.1	994.7	1000.9
137.5°	676.6	734.4	789.5	839.7	880.5	911.6	928.8	935.6
140°	664.1	712.8	760.5	804.1	842.4	869.3	884.8	890.0
142.5°	653.4	694.6	735.7	773.4	805.9	828.7	843.4	847.7
145°	639.3	671.4	703.6	731.5	756.3	774.0	785.4	789.5
147.5°	626.1	652.1	676.8	697.9	717.6	731.7	738.3	740.2
150°	618.6	641.4	661.0	679.7	695.3	707.7	711.9	712.8
152.5°	610.3	630.6	648.6	663.2	676.2	686.1	690.3	691.3
155°	597.8	614.4	628.9	640.3	650.7	657.9	661.0	662.1
157.5°	585.4	599.1	610.3	619.2	627.2	633.3	636.1	636.0
160°	577.1	587.5	597.8	605.1	612.3	617.5	619.6	618.6
162.5°	568.0	577.6	586.2	592.6	598.2	602.6	603.1	602.8
165°	555.4	562.6	568.8	574.0	578.2	580.2	580.2	580.2
167.5°	543.3	548.1	552.9	556.6	558.7	560.5	559.7	559.5
170°	536.7	539.8	543.0	545.0	547.1	548.1	548.1	547.1
172.5°	529.2	532.4	534.7	535.9	536.3	538.1	536.5	535.5
175°	521.2	521.2	523.3	523.3	523.3	524.3	522.2	521.2
177.5°	515.6	516.4	516.4	516.4	515.6	516.4	513.9	513.9
180°	513.9	513.9	513.9	513.9	513.9	513.9	513.9	513.9

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