

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: P333543-940

Luminaire Tested: **S125RDIP-S610D1035U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333543-940  
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-S610D1035U940-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5432.7 lumens  
Efficiency: N/A  
Efficacy: 122.1 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

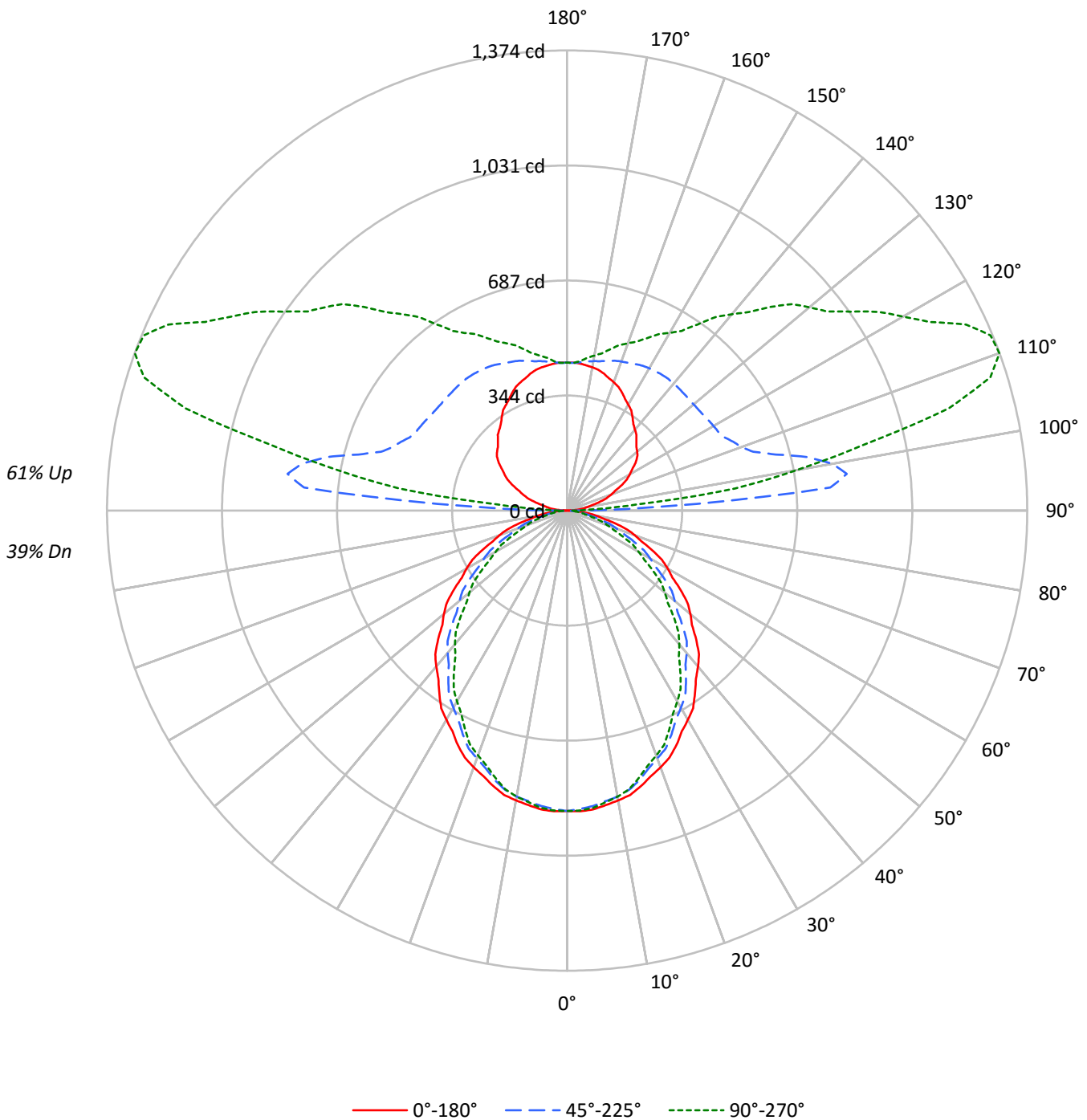
Input Watts (W): 44.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	96	91	88	84	87	83	80	77	68	66	64	54	52	51	41	40	39	33
2	87	80	74	69	79	73	68	64	60	56	53	47	45	43	36	35	33	28
3	79	70	63	58	72	64	58	53	53	48	45	42	39	36	32	30	28	24
4	73	62	55	49	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	67	55	48	42	60	51	44	39	42	37	33	34	30	27	26	24	22	18
6	61	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	37	31	26	31	26	22	25	22	19	20	17	15	13
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	18	16	14	11
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	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	1.6
10°-20°	235.7	4.3
20°-30°	341.8	6.3
30°-40°	389.6	7.2
40°-50°	379.7	7.0
50°-60°	319.6	5.9
60°-70°	224.1	4.1
70°-80°	115.2	2.1
80°-90°	31.5	0.6
90°-100°	320.0	5.9
100°-110°	688.0	12.7
110°-120°	645.7	11.9
120°-130°	523.3	9.6
130°-140°	419.9	7.7
140°-150°	316.9	5.8
150°-160°	223.1	4.1
160°-170°	131.5	2.4
170°-180°	42.8	0.8
0°-30°	661.9	12.2
0°-40°	1051.5	19.4
0°-60°	1750.9	32.2
0°-90°	2121.6	39.1
90°-120°	1653.7	30.4
90°-150°	2913.7	53.6
90°-180°	3311.0	60.9
0°-180°	5432.7	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	8	14	19	20	3
95°	29	87	789	358	209	31
105°	101	141	645	1271	1180	106
115°	180	217	518	1117	1314	177
125°	249	292	497	888	1035	221
135°	292	351	493	745	860	227
145°	340	389	495	616	678	213
155°	388	418	482	545	569	179
165°	424	435	463	491	498	119
175°	441	441	444	450	448	42
180°	442	442	442	442	442	



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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	11.9	11.5	11.0	10.5	10.4	10.4	10.7	10.7	11.0	11.1
90°	0.9	1.8	3.6	5.4	7.1	8.9	9.8	11.6	12.5	14.3	15.2
92.5°	10.9	13.2	20.7	31.7	47.0	73.0	121.6	203.1	291.6	287.0	232.3
95°	29.3	30.2	37.4	47.2	66.8	106.8	202.1	397.9	643.6	788.7	771.8
97.5°	48.8	49.8	54.8	64.6	82.2	111.1	174.2	317.6	574.7	842.3	976.5
100°	62.3	64.1	67.7	77.4	94.3	121.1	172.7	288.4	512.7	803.8	1026.4
102.5°	77.3	78.3	81.1	91.7	107.2	133.1	179.1	276.3	465.7	736.2	996.5
105°	100.6	100.6	105.0	114.0	128.2	153.1	192.3	271.5	420.2	645.3	900.9
107.5°	123.4	125.2	129.4	136.7	151.5	174.0	211.9	279.7	400.9	582.9	803.3
110°	139.7	141.5	145.1	153.1	166.5	189.6	226.1	287.5	395.2	553.7	747.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	156.1	157.9	160.8	168.8	182.1	204.6	239.6	297.5	395.2	536.6	706.4
115°	179.9	181.6	184.2	192.3	205.6	227.9	260.8	312.5	397.9	518.1	661.4
117.5°	201.2	203.8	206.7	214.7	229.9	251.4	282.6	329.6	403.8	509.0	634.5
120°	215.4	218.1	221.7	229.7	244.8	267.1	298.2	340.9	409.5	504.7	619.6
122.5°	230.4	232.3	235.1	243.2	259.8	282.0	313.2	353.7	414.5	501.1	606.7
125°	249.2	251.0	255.5	263.5	280.4	303.5	333.0	371.2	422.8	496.7	589.3
127.5°	264.0	266.7	272.4	282.6	300.5	323.7	352.0	387.2	432.3	494.5	573.3
130°	273.3	276.0	283.1	294.6	313.3	336.4	364.1	397.9	438.0	493.1	562.6
132.5°	280.4	283.7	292.3	305.3	324.8	347.9	375.5	407.2	444.3	493.1	554.0
135°	291.9	295.5	306.2	320.5	339.1	363.2	390.7	420.2	453.1	493.1	543.9
137.5°	306.6	309.2	319.2	333.5	351.8	376.6	401.6	429.8	461.1	494.2	534.8
140°	315.1	317.8	328.5	342.7	359.6	383.7	409.5	436.2	464.7	494.9	530.6
142.5°	325.1	327.1	337.0	351.2	367.5	390.0	414.5	439.7	466.8	495.6	527.0
145°	340.0	341.8	350.7	363.2	379.2	399.7	422.8	445.1	469.1	494.9	521.7
147.5°	355.7	356.8	364.4	376.0	389.9	407.9	428.2	448.3	470.0	492.6	516.1
150°	365.0	366.8	373.0	384.6	397.0	412.1	431.8	450.4	470.0	490.4	511.8
152.5°	375.0	376.0	381.6	391.6	403.4	417.1	435.3	451.8	469.3	487.7	506.8
155°	388.1	388.1	393.4	402.3	411.3	423.7	438.8	453.1	467.3	482.5	498.5
157.5°	399.8	399.7	403.9	411.6	419.5	428.9	441.8	454.0	465.0	477.2	490.6
160°	407.7	406.8	410.4	416.6	423.7	431.8	443.3	454.0	462.9	473.6	484.3
162.5°	414.1	413.2	416.8	422.3	428.0	434.6	444.7	453.3	460.7	469.3	478.6
165°	423.7	422.0	424.6	429.1	432.7	438.0	445.1	452.2	457.5	462.9	470.0
167.5°	430.2	429.3	430.9	433.4	435.9	439.2	445.1	450.0	452.5	456.6	461.6
170°	434.4	433.5	434.4	436.2	438.0	440.6	445.1	448.6	450.4	453.1	456.6
172.5°	437.3	435.7	436.6	438.3	439.3	440.6	444.3	447.2	447.5	448.8	451.7
175°	440.6	438.8	439.7	440.6	440.6	440.6	443.3	445.1	444.2	444.2	445.1
177.5°	442.2	440.8	440.8	441.5	440.8	440.8	442.2	442.9	441.5	441.5	442.2
180°	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5



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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°	11.3	11.5	11.7	11.9	11.9	11.8	11.8	11.7
90°	16.1	16.9	17.8	19.6	19.6	19.6	20.5	20.5
92.5°	157.7	114.5	86.1	73.0	61.6	59.5	58.2	56.8
95°	640.1	504.7	395.2	320.5	257.3	230.6	223.5	209.2
97.5°	953.2	858.3	751.6	647.6	592.7	542.8	517.0	505.6
100°	1094.9	1051.3	959.6	867.0	805.6	741.5	708.6	694.4
102.5°	1142.6	1169.5	1125.5	1062.8	997.2	951.6	915.8	905.1
105°	1114.5	1236.4	1275.6	1265.8	1237.3	1208.0	1190.2	1179.5
107.5°	1014.1	1176.8	1277.4	1323.8	1338.3	1338.1	1332.2	1325.1
110°	940.0	1109.1	1234.7	1310.4	1350.4	1367.3	1373.5	1373.5





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CATALOG NUMBER: S125RDIP-S610D1035U940-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	881.6	1042.2	1169.1	1258.4	1316.9	1345.9	1361.5	1367.8
115°	808.2	946.3	1068.2	1165.2	1234.7	1277.4	1302.3	1313.9
117.5°	760.9	879.9	984.9	1073.9	1143.4	1187.5	1212.2	1219.3
120°	735.3	842.1	940.0	1018.3	1084.2	1126.9	1151.0	1158.2
122.5°	716.0	815.0	902.2	975.6	1034.4	1073.5	1097.6	1104.0
125°	688.1	778.9	856.3	920.4	970.3	1006.7	1026.4	1035.3
127.5°	659.6	744.4	816.6	876.6	921.9	954.0	972.6	976.5
130°	641.9	720.1	789.6	847.5	892.0	921.3	939.1	944.5
132.5°	624.0	697.3	760.4	816.1	860.6	890.0	906.3	912.4
135°	600.8	662.3	719.3	770.0	809.1	838.6	854.5	859.9
137.5°	581.3	631.0	678.3	721.4	756.4	783.2	798.0	803.8
140°	570.6	612.4	653.4	690.8	723.7	746.9	760.2	764.6
142.5°	561.3	596.7	632.0	664.4	692.4	711.9	724.6	728.3
145°	549.2	576.8	604.4	628.5	649.8	664.9	674.8	678.3
147.5°	537.9	560.3	581.5	599.6	616.5	628.7	634.4	636.0
150°	531.5	551.0	567.9	584.0	597.3	608.0	611.5	612.4
152.5°	524.3	541.7	557.2	569.7	580.9	589.5	593.0	593.9
155°	513.6	527.9	540.4	550.1	559.0	565.3	567.9	568.8
157.5°	502.9	514.7	524.3	532.0	539.0	544.0	546.5	546.4
160°	495.8	504.7	513.6	519.9	526.1	530.6	532.4	531.5
162.5°	488.0	496.1	503.6	509.2	514.0	517.7	518.1	517.9
165°	477.2	483.4	488.7	493.1	496.7	498.5	498.5	498.5
167.5°	466.8	470.9	475.0	478.2	480.0	481.6	480.9	480.7
170°	461.1	463.8	466.5	468.2	470.0	470.9	470.9	470.0
172.5°	454.7	457.4	459.3	460.4	460.7	462.4	460.9	460.0
175°	447.7	447.7	449.5	449.5	449.5	450.4	448.6	447.7
177.5°	442.9	443.6	443.6	443.6	442.9	443.6	441.5	441.5
180°	441.5	441.5	441.5	441.5	441.5	441.5	441.5	441.5

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