

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: P332621-927

Luminaire Tested: **S124DIP-S795D1205U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332621-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S795D1205U927-4F0-1E-UDD-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5975.3 lumens  
Efficiency: N/A  
Efficacy: 105.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

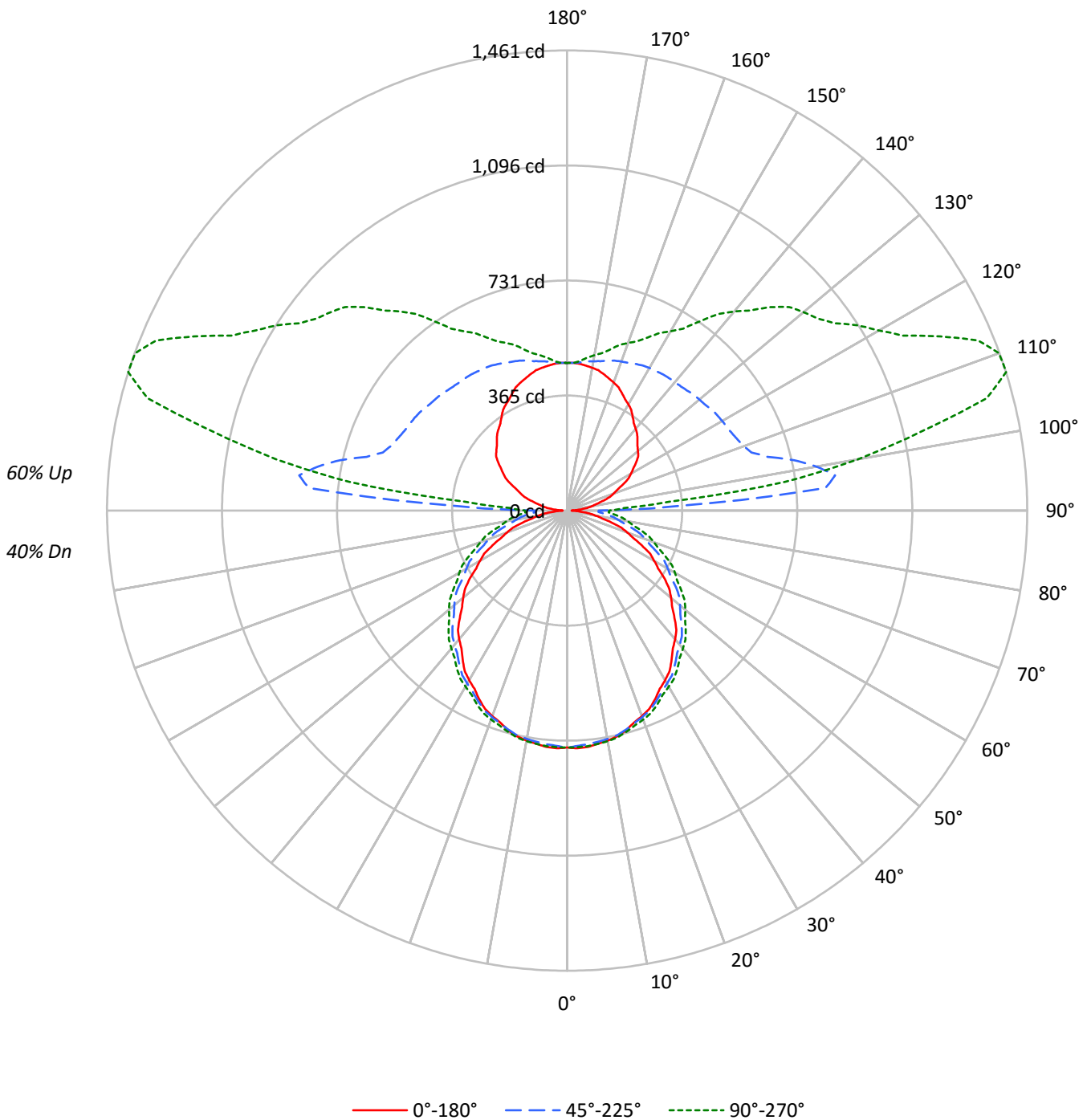
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	0
RCR																					
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40			40
1	95	90	86	82	86	82	78	75	67	64	62	53	51	49	40	39	38	32			32
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	31	26			26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	22			22
4	71	60	52	46	64	55	48	43	45	40	36	36	32	29	27	24	22	18			18
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	21	19	16			16
6	60	48	40	34	54	44	37	31	36	30	26	29	25	22	22	19	17	14			14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	12			12
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13	11			11
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10			10
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11	9			9

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

	0°	45°	90°
0°	6075	6075	6075
5°	6093	5937	5954
10°	6056	5839	5835
15°	6002	5727	5695
20°	5920	5603	5561
25°	5828	5464	5411
30°	5728	5326	5258
35°	5615	5184	5124
40°	5525	5049	4984
45°	5391	4925	4864
50°	5277	4781	4738
55°	5160	4647	4588
60°	4976	4475	4453
65°	4776	4290	4285
70°	4532	4078	4091
75°	4196	3847	3915
80°	3817	3624	3742
85°	3344	3427	3643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.3	1.2
10°-20°	204.2	3.4
20°-30°	308.7	5.2
30°-40°	373.5	6.3
40°-50°	394.9	6.6
50°-60°	371.6	6.2
60°-70°	308.3	5.2
70°-80°	216.6	3.6
80°-90°	125.0	2.1
90°-100°	411.1	6.9
100°-110°	758.2	12.7
110°-120°	667.0	11.2
120°-130°	551.1	9.2
130°-140°	451.3	7.6
140°-150°	339.8	5.7
150°-160°	237.6	4.0
160°-170°	139.8	2.3
170°-180°	45.5	0.8
0°-30°	584.1	9.8
0°-40°	957.6	16.0
0°-60°	1724.1	28.9
0°-90°	2374.0	39.7
90°-120°	1836.3	30.7
90°-150°	3178.4	53.2
90°-180°	3601.0	60.3
0°-180°	5975.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	753	751	745	751	751	71
15°	722	723	720	728	727	203
25°	661	666	668	677	678	304
35°	578	588	597	608	611	362
45°	482	498	514	528	532	372
55°	378	396	420	437	442	336
65°	261	288	317	337	345	259
75°	145	176	212	234	243	154
85°	45	80	118	142	152	48
90°	14	55	100	125	134	11
95°	41	135	824	467	328	43
105°	115	181	660	1376	1379	123
115°	195	252	578	1092	1308	193
125°	268	318	559	919	1037	238
135°	316	376	539	802	914	244
145°	363	414	528	664	733	228
155°	412	444	514	582	607	190
165°	448	462	492	522	529	127
175°	468	469	472	479	477	44
180°	469	469	469	469	469	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	755.2	754.7	754.2	753.8	753.4	752.6	751.3	750.1	748.9	747.7	748.8
5°	753.3	752.7	752.2	751.6	751.1	750.1	748.8	747.5	746.2	744.9	746.4
7.5°	746.9	746.6	746.2	745.9	745.5	744.8	743.8	742.7	741.6	740.5	742.2
10°	741.5	741.3	741.2	740.9	740.8	740.2	739.3	738.3	737.4	736.4	738.2
12.5°	734.1	734.0	734.0	734.0	734.0	733.6	733.0	732.3	731.7	731.0	732.6
15°	722.2	722.3	722.5	722.7	722.9	722.7	722.2	721.6	721.0	720.4	722.2
17.5°	705.8	706.3	706.9	707.5	708.1	708.2	708.1	708.1	707.9	707.8	709.6
20°	694.3	694.9	695.5	696.0	696.6	697.0	697.1	697.3	697.5	697.7	699.6
22.5°	681.5	682.2	682.9	683.7	684.4	684.9	685.2	685.6	685.9	686.3	688.1
25°	660.6	661.7	662.9	664.0	665.1	666.0	666.5	667.1	667.7	668.2	670.3
27.5°	637.4	639.0	640.6	642.3	644.0	645.2	646.1	646.9	647.8	648.6	650.5
30°	621.9	623.4	624.9	626.4	627.9	629.2	630.6	631.8	633.2	634.5	636.5
32.5°	605.0	606.8	608.6	610.4	612.2	613.8	615.3	616.7	618.2	619.6	622.0
35°	578.1	580.3	582.6	584.8	587.0	589.1	591.0	592.9	594.7	596.6	599.2
37.5°	550.9	553.5	556.1	558.6	561.3	563.7	566.0	568.3	570.7	573.0	575.7
40°	533.4	535.8	538.2	540.7	543.1	545.7	548.3	550.9	553.5	556.1	559.0
42.5°	513.2	515.9	518.6	521.3	524.1	527.0	530.0	533.1	536.2	539.2	542.4
45°	482.0	485.5	489.1	492.7	496.2	499.8	503.4	506.9	510.4	514.0	517.2
47.5°	452.2	455.8	459.5	463.2	466.8	470.7	474.8	479.0	483.1	487.2	490.5
50°	430.6	434.7	438.8	442.9	447.0	451.1	455.3	459.4	463.5	467.6	471.4
52.5°	409.0	413.1	417.2	421.4	425.5	429.9	434.6	439.3	444.1	448.8	452.5
55°	377.5	381.4	385.4	389.3	393.2	398.0	403.6	409.2	414.9	420.5	424.2
57.5°	342.3	347.1	352.0	356.9	361.7	366.9	372.6	378.1	383.7	389.3	393.7
60°	319.3	324.2	329.1	334.0	338.8	344.4	350.5	356.7	362.9	369.1	373.4
62.5°	297.1	302.5	307.8	313.1	318.4	324.2	330.3	336.5	342.7	348.9	353.2
65°	261.2	267.2	273.2	279.2	285.2	291.4	297.7	304.1	310.5	316.8	321.5
67.5°	226.6	233.1	239.4	245.7	252.2	258.7	265.5	272.4	279.2	286.0	290.7
70°	203.0	209.5	215.8	222.2	228.5	235.3	242.4	249.5	256.6	263.7	268.8
72.5°	180.1	186.6	193.2	199.7	206.2	213.3	220.9	228.4	236.0	243.5	248.4
75°	145.0	151.9	158.8	165.7	172.6	180.1	187.9	195.7	203.7	211.5	216.7
77.5°	112.1	119.4	126.7	134.1	141.4	149.2	157.5	165.7	174.0	182.2	187.5
80°	91.8	99.3	106.8	114.3	121.8	129.7	137.9	146.2	154.4	162.6	168.3
82.5°	71.6	79.4	87.2	95.0	102.7	110.8	119.1	127.3	135.5	143.8	149.5
85°	44.7	52.5	60.4	68.3	76.1	84.3	92.7	101.1	109.6	118.0	123.6
87.5°	25.1	33.1	41.4	49.1	57.0	64.9	74.2	82.4	90.9	99.6	104.8
90°	14.4	23.8	34.0	42.4	50.8	58.5	72.2	80.2	90.1	100.0	104.5
92.5°	23.3	34.9	50.2	68.2	88.4	114.9	169.8	249.2	326.9	371.4	327.9
95°	41.4	50.3	65.7	83.8	112.1	157.6	245.4	404.1	631.8	823.6	849.8
97.5°	64.4	69.8	83.0	99.3	123.7	162.5	231.8	364.0	590.3	858.3	1042.1
100°	79.2	84.1	95.4	111.3	133.7	169.2	230.8	342.1	537.3	804.1	1044.8
102.5°	94.0	99.7	109.6	124.3	145.3	179.0	235.3	333.9	500.9	738.2	986.1
105°	115.3	121.8	130.2	144.9	165.2	197.3	248.3	331.7	467.5	659.5	880.5
107.5°	140.5	145.4	153.1	167.9	186.9	218.0	265.1	341.2	457.9	613.3	794.5
110°	156.8	161.2	168.5	182.1	201.3	230.8	277.8	348.8	456.6	596.7	751.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	172.3	176.5	184.1	196.8	215.6	244.8	290.1	357.1	458.0	586.7	724.7
115°	194.7	199.2	207.2	218.2	237.3	266.0	308.8	370.0	461.7	578.1	698.2
117.5°	218.8	222.4	229.1	240.3	257.6	286.7	327.3	383.7	466.0	572.1	683.3
120°	234.3	236.8	243.8	254.4	270.6	299.4	339.8	393.2	469.4	568.8	674.7
122.5°	249.1	251.0	257.6	267.0	284.3	312.0	352.0	402.1	473.0	564.7	665.4
125°	267.5	271.1	276.4	286.3	303.6	331.7	369.5	416.5	479.2	559.4	651.3
127.5°	284.5	287.2	293.7	305.1	323.1	350.9	386.4	428.9	483.2	552.2	633.0
130°	293.4	296.9	304.1	317.7	335.0	363.1	397.4	436.3	486.2	548.1	621.5
132.5°	303.0	305.7	315.1	328.0	346.8	373.1	406.8	444.3	489.3	544.7	611.2
135°	315.6	319.2	328.4	344.1	363.5	388.0	419.7	454.2	493.2	538.7	595.1
137.5°	329.0	332.3	342.3	357.0	376.8	399.9	428.9	460.5	494.6	534.6	581.4
140°	338.6	341.2	351.1	366.5	385.7	407.8	435.6	465.2	496.7	531.9	573.9
142.5°	348.2	350.9	360.3	375.2	393.7	415.0	441.8	468.9	498.6	530.5	567.8
145°	362.6	365.2	374.2	386.9	404.2	424.4	448.3	473.2	499.9	528.4	559.0
147.5°	379.0	379.7	387.6	400.7	415.0	433.2	455.7	477.4	500.7	525.1	551.2
150°	389.3	390.1	397.2	408.1	421.7	439.1	459.3	479.6	500.7	522.8	545.9
152.5°	398.2	398.3	405.7	416.0	428.3	444.3	462.3	481.1	499.3	519.2	540.0
155°	411.5	412.4	417.9	427.1	437.3	451.1	466.7	482.4	497.1	513.7	531.2
157.5°	424.5	424.5	429.7	436.9	445.7	456.6	469.8	482.4	494.7	507.9	522.1
160°	432.6	432.6	436.3	442.8	450.1	460.3	471.3	482.4	492.5	503.5	515.5
162.5°	440.0	439.3	442.2	447.9	454.6	462.5	472.8	482.4	490.3	499.1	509.6
165°	448.3	448.3	450.1	454.7	459.3	464.9	473.2	480.5	486.0	492.5	499.9
167.5°	456.6	455.7	456.6	460.1	462.6	466.9	472.9	478.3	481.6	485.8	491.0
170°	460.3	459.3	460.3	463.0	464.9	467.6	472.2	476.8	478.6	481.4	485.1
172.5°	463.9	463.0	463.2	465.2	466.4	468.3	471.5	475.4	475.7	477.0	480.0
175°	467.6	466.7	466.7	467.6	468.6	468.6	470.4	473.2	472.2	472.2	474.0
177.5°	469.3	468.6	467.8	468.6	468.6	468.6	469.3	470.7	469.3	469.3	470.0
180°	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	749.8	750.9	751.9	752.4	752.3	752.1	751.9	751.8
5°	747.9	749.4	750.8	751.5	751.3	751.1	751.0	750.8
7.5°	743.9	745.5	747.3	748.0	747.8	747.6	747.4	747.3
10°	739.8	741.5	743.2	743.9	743.8	743.5	743.4	743.2
12.5°	734.1	735.7	737.2	737.9	737.9	737.8	737.8	737.8
15°	723.8	725.5	727.1	727.9	727.8	727.5	727.4	727.1
17.5°	711.2	713.0	714.7	715.5	715.3	715.2	715.0	714.9
20°	701.4	703.3	705.2	706.2	706.2	706.2	706.2	706.2
22.5°	690.0	691.8	693.7	694.8	695.1	695.4	695.7	696.0
25°	672.3	674.4	676.4	677.6	677.7	677.9	678.1	678.3
27.5°	652.4	654.3	656.3	657.4	657.6	657.8	658.1	658.2
30°	638.6	640.6	642.7	644.0	644.4	644.7	645.1	645.5
32.5°	624.4	626.8	629.1	630.5	630.8	631.2	631.6	632.0
35°	601.8	604.4	607.0	608.6	609.2	609.7	610.4	610.9
37.5°	578.3	581.0	583.6	585.3	585.8	586.5	587.0	587.6
40°	561.7	564.6	567.4	569.1	569.9	570.6	571.4	572.1
42.5°	545.5	548.6	551.7	553.6	554.1	554.8	555.4	556.0
45°	520.4	523.6	526.7	528.8	529.7	530.7	531.6	532.5
47.5°	493.8	497.1	500.4	502.6	503.7	504.9	506.0	507.1
50°	475.2	478.9	482.6	485.1	486.2	487.4	488.5	489.6
52.5°	456.3	460.0	463.7	466.2	467.3	468.4	469.5	470.7
55°	427.9	431.7	435.5	437.9	439.0	440.1	441.2	442.4
57.5°	398.2	402.7	407.1	409.9	410.9	411.9	413.0	414.1
60°	377.7	382.0	386.3	389.2	390.7	392.2	393.7	395.2
62.5°	357.4	361.8	366.1	369.0	370.5	372.0	373.4	374.9
65°	326.2	330.9	335.6	338.7	340.2	341.7	343.1	344.6
67.5°	295.5	300.2	305.0	308.1	309.6	311.0	312.5	313.9
70°	273.9	278.9	284.0	287.2	288.4	289.8	291.0	292.4
72.5°	253.3	258.3	263.2	266.3	267.8	269.3	270.7	272.2
75°	222.0	227.2	232.5	235.9	237.7	239.3	241.0	242.6
77.5°	192.8	198.1	203.4	207.0	208.8	210.6	212.4	214.2
80°	173.9	179.5	185.1	188.6	190.1	191.6	193.1	194.6
82.5°	155.3	161.1	166.8	170.6	172.1	173.8	175.5	177.1
85°	129.2	134.8	140.5	144.2	146.1	147.9	149.8	151.7
87.5°	110.4	116.1	121.6	125.2	127.0	128.8	130.3	132.0
90°	110.8	117.2	123.6	127.0	129.4	131.8	132.5	134.0
92.5°	270.7	231.2	208.7	193.7	184.3	180.9	179.3	180.8
95°	765.5	627.9	509.6	423.7	380.2	353.4	338.5	328.3
97.5°	1085.7	1037.5	952.4	859.6	795.1	741.3	715.3	697.8
100°	1184.3	1207.8	1167.7	1102.8	1024.0	969.2	942.9	936.8
102.5°	1175.4	1271.7	1289.7	1264.5	1216.8	1177.6	1149.9	1145.5
105°	1096.0	1259.9	1355.7	1396.5	1399.9	1394.0	1382.6	1378.6
107.5°	985.8	1160.0	1292.9	1378.0	1424.8	1447.2	1457.7	1461.4
110°	919.2	1082.8	1220.5	1324.7	1391.5	1431.7	1449.8	1459.5





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CATALOG NUMBER: S124DIP-S795D1205U927-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	869.1	1014.1	1144.4	1248.5	1324.1	1372.4	1397.1	1412.1
115°	817.4	934.8	1046.6	1137.7	1211.6	1268.2	1299.0	1307.7
117.5°	789.1	886.7	975.3	1052.9	1116.4	1164.3	1195.6	1202.8
120°	775.1	864.4	941.8	1009.8	1063.7	1105.7	1131.2	1142.8
122.5°	762.9	849.3	920.0	979.9	1025.6	1061.5	1083.2	1094.6
125°	743.2	825.9	892.9	945.9	983.9	1011.7	1030.3	1037.0
127.5°	719.4	798.4	865.1	915.4	953.7	978.7	994.7	1001.6
130°	701.2	777.4	843.3	894.4	933.2	957.4	973.2	979.9
132.5°	682.8	754.3	818.6	869.6	907.8	934.9	949.9	956.6
135°	656.1	718.9	778.1	826.2	864.1	891.0	906.9	913.5
137.5°	632.4	685.7	735.8	779.2	814.6	840.9	854.0	861.6
140°	618.7	664.4	708.3	748.6	781.7	803.0	816.7	825.1
142.5°	606.4	646.7	684.4	719.3	748.6	768.2	780.4	786.3
145°	589.5	621.9	650.7	677.4	701.2	717.6	727.5	732.8
147.5°	575.6	600.6	622.9	643.5	661.0	675.1	682.7	684.9
150°	568.0	589.1	607.5	624.1	638.8	650.8	656.3	657.3
152.5°	559.8	578.1	595.0	608.6	621.2	630.9	634.2	635.2
155°	547.7	562.4	576.2	587.3	596.5	603.9	606.7	606.7
157.5°	534.6	547.0	558.6	567.4	574.4	580.0	581.6	581.6
160°	526.6	536.6	546.8	554.1	559.7	565.2	566.1	566.1
162.5°	518.4	527.1	535.0	541.6	545.7	551.2	552.2	551.4
165°	507.2	512.7	519.2	523.8	527.4	531.2	530.2	529.3
167.5°	496.4	500.6	505.7	508.5	510.3	512.7	512.5	511.8
170°	489.7	492.5	496.1	498.9	500.7	501.7	500.7	500.7
172.5°	483.8	485.8	488.1	490.0	491.2	492.1	491.2	489.7
175°	475.9	476.8	478.6	478.6	478.6	480.5	478.6	476.8
177.5°	470.7	471.5	471.5	472.2	471.5	472.2	470.7	469.3
180°	468.6	468.6	468.6	468.6	468.6	468.6	468.6	468.6

(END OF REPORT)