

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: P332601-927

Luminaire Tested: **S124DIP-S795D810U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332601-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DIP-S795D810U927-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5129.1 lumens  
Efficiency: N/A  
Efficacy: 111.7 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: General Diffuse

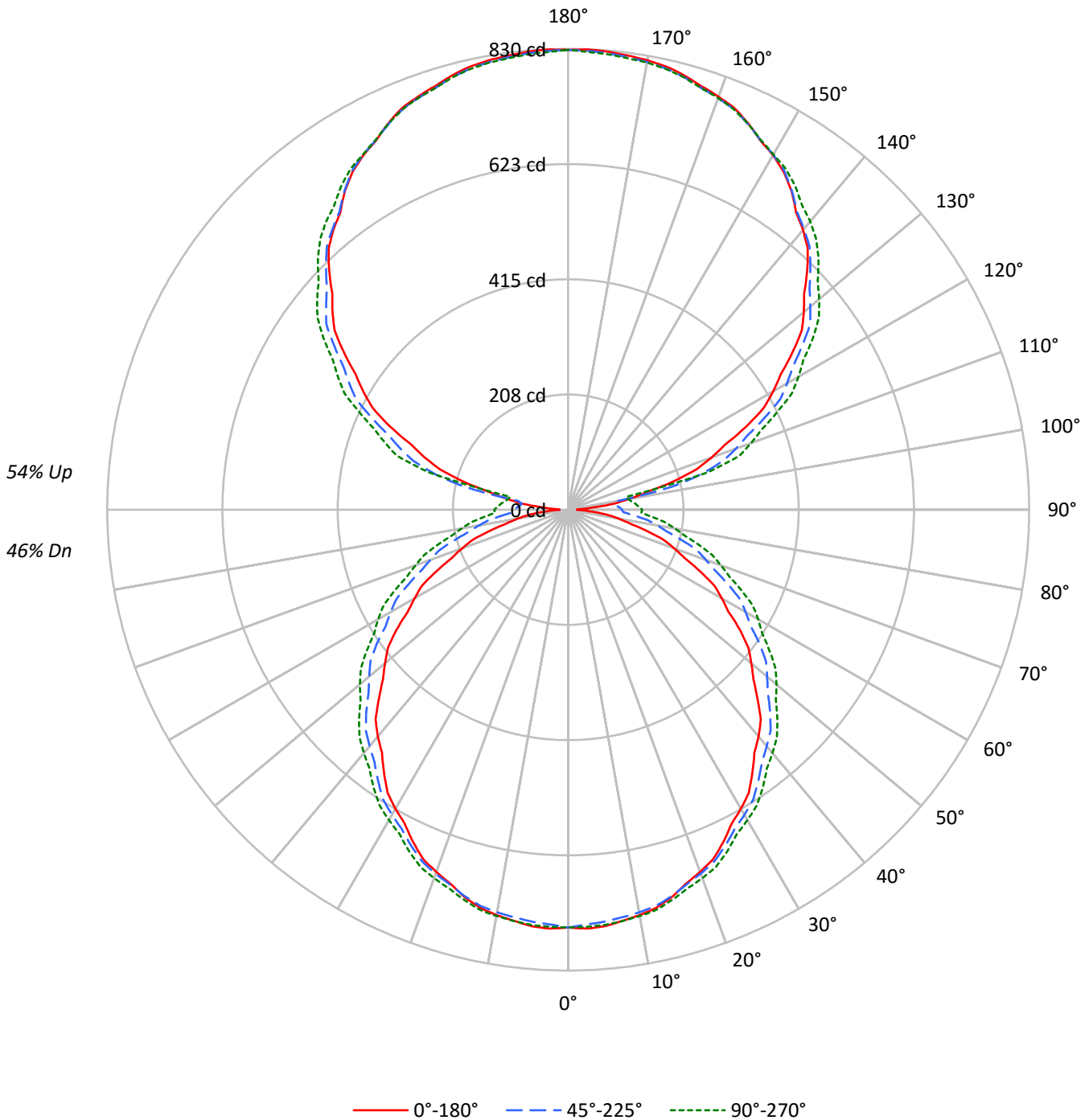
Input Watts (W): 45.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20										
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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46																				
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	43	37																				
2	87	79	73	67	79	73	67	62	61	56	53	49	46	44	39	37	35	30																				
3	79	69	62	55	72	64	57	52	53	48	44	43	40	37	34	32	29	25																				
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	28	25	21																				
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18																				
6	61	48	40	34	55	45	37	32	38	32	28	31	27	23	25	21	19	16																				
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	22	19	17	14																				
8	52	40	32	26	48	37	30	25	31	25	21	26	21	18	21	17	15	12																				
9	48	36	28	23	44	33	27	22	28	23	19	24	19	16	19	16	13	11																				
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	14	12	10																				

**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	1.4
10°-20°	204.2	4.0
20°-30°	308.7	6.0
30°-40°	373.5	7.3
40°-50°	394.9	7.7
50°-60°	371.6	7.2
60°-70°	308.3	6.0
70°-80°	216.6	4.2
80°-90°	124.8	2.4
90°-100°	101.0	2.0
100°-110°	234.4	4.6
110°-120°	381.6	7.4
120°-130°	458.9	8.9
130°-140°	478.0	9.3
140°-150°	440.6	8.6
150°-160°	353.9	6.9
160°-170°	228.2	4.4
170°-180°	78.7	1.5
0°-30°	584.1	11.4
0°-40°	957.6	18.7
0°-60°	1724.1	33.6
0°-90°	2373.8	46.3
90°-120°	717.0	14.0
90°-150°	2094.5	40.8
90°-180°	2755.0	53.7
0°-180°	5129.1	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°	15	56	97	124	133	11
95°	45	53	87	112	122	52
105°	194	215	249	273	260	204
115°	353	364	389	408	415	348
125°	493	495	514	531	538	440
135°	609	609	616	631	638	469
145°	701	702	702	707	712	438
155°	768	768	766	768	767	354
165°	810	807	806	811	806	229
175°	828	825	825	830	823	79
180°	828	828	828	828	828	



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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°	25.3	33.3	41.2	49.1	57.1	65.3	73.7	82.1	90.5	98.9	104.6
90°	15.4	24.3	33.4	42.4	51.3	60.4	69.6	78.7	87.9	97.0	103.3
92.5°	20.6	27.4	34.2	41.1	47.9	55.9	65.0	74.2	83.3	92.5	98.6
95°	45.0	46.5	48.0	49.5	51.0	55.7	63.5	71.3	79.1	86.9	92.8
97.5°	82.3	90.5	98.8	107.0	115.3	115.5	107.7	100.0	92.2	84.4	89.4
100°	110.8	118.2	125.6	132.9	140.2	138.1	126.4	114.7	103.0	91.3	94.0
102.5°	143.5	149.6	155.7	161.8	167.9	173.3	177.9	182.6	187.3	191.9	171.7
105°	194.0	198.6	203.2	207.7	212.3	218.4	226.0	233.6	241.2	248.9	254.8
107.5°	242.3	245.8	249.2	252.7	256.2	261.7	269.2	276.7	284.2	291.7	296.9
110°	274.3	277.3	280.4	283.4	286.5	291.7	299.0	306.4	313.8	321.2	325.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	305.4	308.4	311.5	314.6	317.6	322.5	329.2	335.7	342.4	349.0	353.2
115°	353.2	355.3	357.4	359.5	361.6	365.5	371.4	377.2	383.1	389.0	393.3
117.5°	397.0	398.5	400.1	401.6	403.2	406.9	412.8	418.7	424.6	430.5	434.3
120°	426.0	427.1	428.3	429.4	430.5	433.6	438.9	444.3	449.6	454.9	458.8
122.5°	453.8	454.2	454.6	455.1	455.6	458.4	463.7	469.1	474.4	479.7	483.6
125°	492.7	493.1	493.5	493.8	494.2	496.5	501.0	505.3	509.8	514.1	518.2
127.5°	530.2	530.1	530.0	530.0	530.0	532.1	536.3	540.5	544.8	549.0	552.3
130°	553.8	553.7	553.7	553.7	553.6	555.2	558.6	562.1	565.5	568.9	572.4
132.5°	576.1	576.2	576.2	576.3	576.3	577.8	580.7	583.7	586.6	589.5	592.9
135°	608.7	608.6	608.4	608.3	608.2	609.0	610.9	612.8	614.6	616.5	619.7
137.5°	638.3	638.2	638.0	637.9	637.8	638.3	639.6	640.8	642.1	643.3	646.3
140°	657.6	657.7	657.8	657.9	658.0	658.2	658.7	659.2	659.7	660.1	663.0
142.5°	674.3	674.8	675.2	675.7	676.1	676.4	676.4	676.5	676.5	676.6	679.1
145°	700.8	701.0	701.2	701.5	701.6	701.8	701.8	701.8	701.8	701.8	703.1
147.5°	721.9	722.5	723.1	723.7	724.3	724.5	724.4	724.2	724.1	724.0	724.2
150°	737.3	737.7	738.0	738.4	738.8	738.9	738.7	738.6	738.5	738.3	738.3
152.5°	749.5	750.0	750.4	750.8	751.1	751.2	751.0	750.8	750.4	750.2	750.4
155°	767.5	767.5	767.7	767.9	768.0	767.9	767.5	767.0	766.6	766.2	766.8
157.5°	782.7	782.6	782.5	782.4	782.4	782.0	781.6	781.2	780.7	780.2	780.9
160°	791.6	791.2	790.8	790.4	790.0	789.6	789.6	789.4	789.3	789.1	790.0
162.5°	799.5	799.0	798.4	798.0	797.4	797.1	796.9	796.9	796.7	796.5	797.4
165°	809.5	808.9	808.2	807.5	806.8	806.4	806.4	806.4	806.4	806.4	807.6
167.5°	817.5	816.7	816.0	815.3	814.6	814.2	814.1	814.0	814.0	813.9	815.1
170°	822.0	821.1	820.3	819.4	818.6	818.3	818.4	818.6	818.7	818.9	819.9
172.5°	824.9	824.1	823.2	822.4	821.7	821.3	821.4	821.6	821.7	821.8	822.9
175°	828.1	827.3	826.5	825.7	824.8	824.5	824.7	824.7	824.9	825.1	826.2
177.5°	829.7	828.9	828.1	827.3	826.6	826.2	826.5	826.7	827.0	827.1	828.0
180°	828.1	828.1	828.1	828.1	828.1	828.1	828.1	828.1	828.1	828.1	828.1



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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°	110.1	115.7	121.4	125.0	126.7	128.4	130.1	131.8
90°	109.6	115.8	122.1	126.1	127.9	129.6	131.4	133.2
92.5°	104.7	110.8	116.9	120.7	122.3	123.9	125.4	127.0
95°	98.7	104.6	110.4	114.3	116.1	118.0	119.8	121.6
97.5°	94.4	99.4	104.4	107.7	109.5	111.2	113.0	114.8
100°	96.7	99.4	102.2	104.3	105.7	107.1	108.6	110.0
102.5°	151.3	130.9	110.7	101.2	102.7	104.2	105.7	107.2
105°	260.7	266.6	272.5	273.8	270.3	266.9	263.4	259.9
107.5°	302.1	307.3	312.5	316.1	317.9	319.8	321.7	323.5
110°	330.3	334.9	339.5	342.8	344.7	346.6	348.5	350.4





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CATALOG NUMBER: S124DIP-S795D810U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	357.3	361.3	365.4	368.5	370.5	372.6	374.5	376.6
115°	397.8	402.1	406.5	409.4	410.7	412.0	413.3	414.6
117.5°	438.2	442.0	445.8	448.5	449.9	451.4	452.8	454.2
120°	462.9	466.9	471.0	473.6	474.8	476.0	477.2	478.5
122.5°	487.5	491.5	495.4	497.9	498.9	500.0	501.1	502.2
125°	522.1	526.1	530.0	532.7	533.9	535.2	536.5	537.7
127.5°	555.6	558.9	562.1	564.4	565.5	566.7	567.8	569.0
130°	575.9	579.4	583.0	585.3	586.4	587.5	588.6	589.8
132.5°	596.2	599.6	602.9	605.1	606.1	607.1	608.2	609.2
135°	623.0	626.3	629.5	631.8	633.3	634.7	636.0	637.5
137.5°	649.4	652.4	655.5	657.4	658.2	659.1	660.0	660.8
140°	665.8	668.7	671.5	673.4	674.5	675.6	676.7	677.8
142.5°	681.4	683.9	686.3	688.0	688.8	689.6	690.4	691.3
145°	704.3	705.6	706.9	708.0	709.0	710.0	711.1	712.1
147.5°	724.5	724.8	725.0	725.5	726.2	727.0	727.7	728.4
150°	738.3	738.3	738.3	738.4	738.6	738.6	738.8	738.9
152.5°	750.7	750.9	751.1	751.1	751.1	751.0	750.9	750.8
155°	767.3	767.9	768.4	768.5	768.0	767.6	767.2	766.8
157.5°	781.6	782.4	783.1	783.1	782.4	781.6	780.9	780.2
160°	790.8	791.6	792.4	792.4	791.6	790.8	790.0	789.1
162.5°	798.2	799.0	799.9	799.8	798.8	797.9	797.0	796.1
165°	808.7	809.8	810.9	810.8	809.5	808.3	807.1	805.8
167.5°	816.3	817.5	818.7	818.6	817.3	815.9	814.5	813.2
170°	821.0	822.1	823.2	823.1	821.7	820.4	819.0	817.6
172.5°	824.0	825.1	826.2	826.0	824.6	823.1	821.6	820.1
175°	827.5	828.8	830.0	829.8	828.1	826.5	824.8	823.2
177.5°	828.9	829.8	830.7	830.4	829.1	827.8	826.5	825.1
180°	828.1	828.1	828.1	828.1	828.1	828.1	828.1	828.1

(END OF REPORT)