

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: P332594-830

Luminaire Tested: **SA4XXDIP-C795D590U830-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332594-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-C795D590U830-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

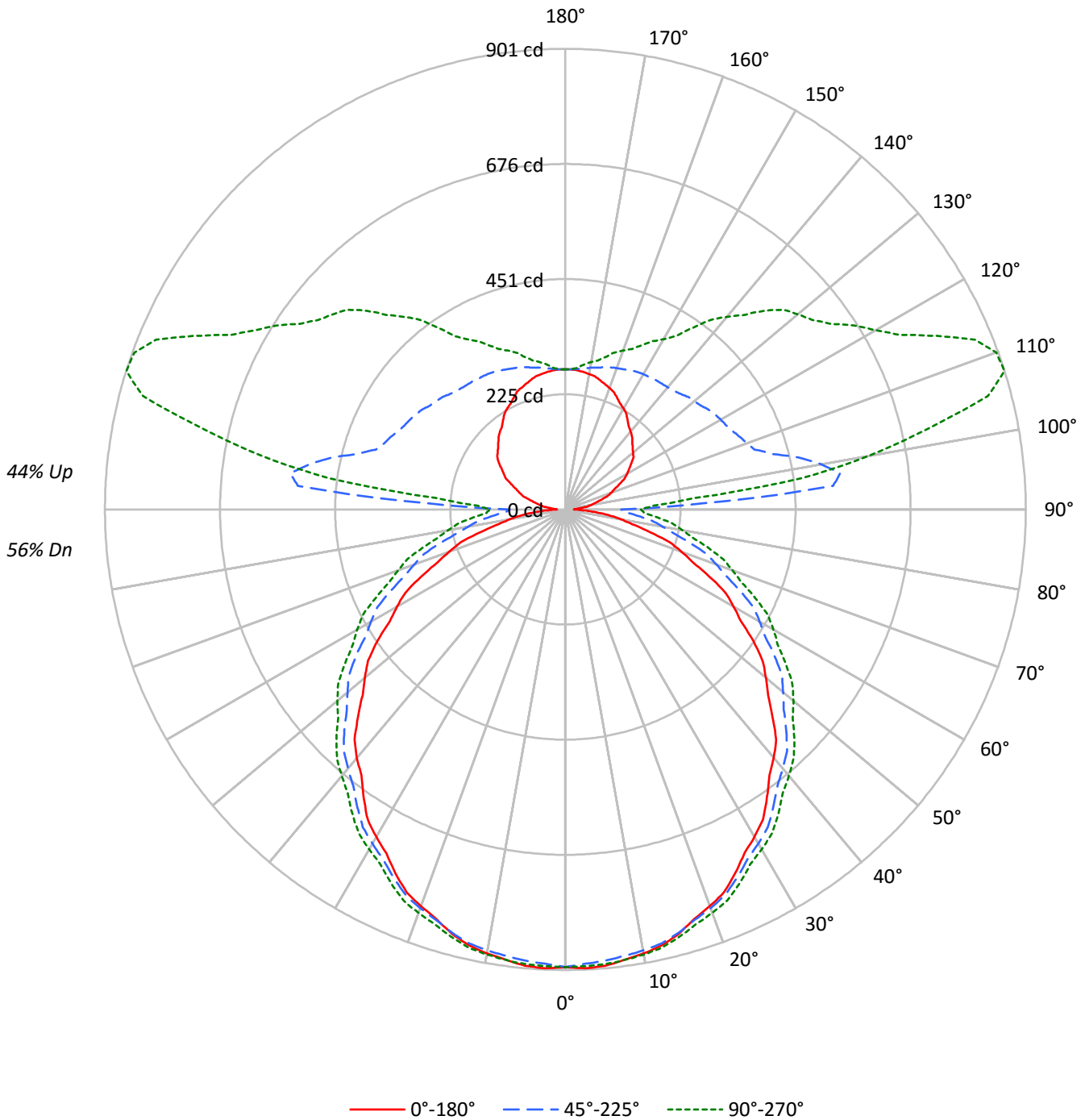
Lumens per Lamp: N/A
Luminaire Lumens: 5043.8 lumens
Efficiency: N/A
Efficacy: 125.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 40.3
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									
RC	80									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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56																			
1	98	93	89	85	91	87	83	79	74	71	69	63	61	59	53	51	50	45																			
2	89	81	74	68	82	75	69	64	64	60	56	55	51	48	46	43	41	37																			
3	81	71	63	56	74	66	59	53	56	51	47	48	44	40	40	37	34	30																			
4	74	62	54	47	68	58	50	45	50	44	39	42	38	34	36	32	29	26																			
5	67	55	47	40	62	52	44	38	45	38	34	38	33	29	32	28	25	22																			
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22	19																			
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	22	20	17																			
8	53	40	32	27	49	38	31	25	33	27	23	28	24	20	24	20	17	15																			
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	18	16	14																			
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	21	17	14	12																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7228	7228	7228
5°	7250	7064	7083
10°	7205	6948	6943
15°	7141	6814	6777
20°	7044	6667	6616
25°	6934	6501	6439
30°	6815	6336	6256
35°	6681	6168	6097
40°	6573	6008	5930
45°	6413	5859	5787
50°	6278	5689	5636
55°	6138	5529	5459
60°	5920	5324	5298
65°	5683	5104	5098
70°	5394	4853	4868
75°	4992	4579	4659
80°	4540	4312	4453
85°	3980	4075	4334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	1.7
10°-20°	242.9	4.8
20°-30°	367.3	7.3
30°-40°	444.4	8.8
40°-50°	469.8	9.3
50°-60°	442.2	8.8
60°-70°	366.8	7.3
70°-80°	257.7	5.1
80°-90°	147.2	2.9
90°-100°	284.2	5.6
100°-110°	475.4	9.4
110°-120°	411.5	8.2
120°-130°	334.2	6.6
130°-140°	268.9	5.3
140°-150°	199.6	4.0
150°-160°	138.8	2.8
160°-170°	81.6	1.6
170°-180°	26.6	0.5
0°-30°	695.0	13.8
0°-40°	1139.4	22.6
0°-60°	2051.4	40.7
0°-90°	2823.1	56.0
90°-120°	1171.1	23.2
90°-150°	1973.8	39.1
90°-180°	2221.0	44.0
0°-180°	5043.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	896	893	886	894	893	85
15°	859	860	857	866	865	242
25°	786	792	795	806	807	362
35°	688	700	710	723	727	431
45°	573	593	612	628	634	443
55°	449	471	500	520	526	400
65°	311	343	377	401	410	308
75°	172	210	252	279	289	183
85°	53	95	140	169	180	57
90°	17	61	109	138	148	12
95°	31	102	526	330	254	30
105°	72	121	419	850	856	77
115°	117	155	362	673	803	116
125°	158	188	341	561	633	141
135°	185	221	319	481	549	144
145°	212	242	309	391	433	133
155°	240	259	300	340	354	111
165°	262	270	288	305	309	74
175°	273	274	276	280	278	26
180°	274	274	274	274	274	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	898.5	898.0	897.4	896.9	896.4	895.4	893.9	892.5	891.1	889.7	890.9
5°	896.3	895.6	894.9	894.3	893.6	892.5	890.9	889.4	887.8	886.3	888.1
7.5°	888.6	888.3	887.9	887.5	887.0	886.2	885.0	883.6	882.3	881.1	883.1
10°	882.2	882.0	881.8	881.6	881.4	880.7	879.6	878.4	877.3	876.2	878.3
12.5°	873.5	873.4	873.4	873.3	873.3	872.9	872.1	871.3	870.5	869.8	871.7
15°	859.2	859.4	859.6	859.9	860.1	859.9	859.2	858.6	857.8	857.1	859.2
17.5°	839.7	840.4	841.0	841.8	842.4	842.6	842.5	842.4	842.3	842.2	844.2
20°	826.1	826.8	827.5	828.1	828.8	829.2	829.4	829.6	829.9	830.1	832.4
22.5°	810.9	811.7	812.6	813.4	814.3	814.9	815.3	815.7	816.1	816.5	818.7
25°	786.0	787.3	788.7	790.0	791.4	792.4	793.1	793.7	794.4	795.0	797.5
27.5°	758.4	760.3	762.2	764.2	766.2	767.7	768.7	769.7	770.7	771.8	774.0
30°	739.9	741.7	743.5	745.3	747.1	748.7	750.3	751.8	753.4	754.9	757.3
32.5°	719.8	722.0	724.2	726.2	728.4	730.3	732.1	733.8	735.6	737.3	740.1
35°	687.8	690.4	693.1	695.8	698.4	700.9	703.1	705.4	707.6	709.8	712.9
37.5°	655.4	658.6	661.7	664.7	667.8	670.7	673.4	676.2	679.0	681.7	684.9
40°	634.6	637.5	640.4	643.3	646.2	649.2	652.3	655.4	658.6	661.7	665.1
42.5°	610.6	613.8	617.1	620.3	623.6	627.0	630.7	634.3	638.0	641.6	645.4
45°	573.4	577.7	581.9	586.2	590.4	594.7	598.9	603.1	607.3	611.5	615.4
47.5°	538.0	542.3	546.7	551.1	555.4	560.1	565.0	569.9	574.8	579.7	583.6
50°	512.3	517.2	522.1	527.0	531.9	536.8	541.7	546.6	551.5	556.4	560.9
52.5°	486.6	491.5	496.4	501.3	506.2	511.5	517.1	522.7	528.4	534.0	538.4
55°	449.1	453.8	458.5	463.2	467.9	473.5	480.2	486.9	493.6	500.3	504.7
57.5°	407.3	413.0	418.9	424.6	430.4	436.6	443.3	449.9	456.6	463.2	468.4
60°	379.9	385.8	391.5	397.4	403.1	409.7	417.1	424.4	431.8	439.1	444.2
62.5°	353.5	359.9	366.2	372.5	378.8	385.7	393.0	400.4	407.7	415.1	420.2
65°	310.8	317.9	325.1	332.2	339.3	346.7	354.2	361.8	369.4	376.9	382.5
67.5°	269.7	277.3	284.8	292.4	300.0	307.8	315.9	324.0	332.2	340.3	345.9
70°	241.6	249.2	256.7	264.4	271.9	279.9	288.4	296.9	305.3	313.8	319.8
72.5°	214.3	222.1	229.9	237.6	245.3	253.7	262.8	271.7	280.8	289.7	295.6
75°	172.5	180.7	188.9	197.2	205.4	214.2	223.6	232.9	242.3	251.7	257.9
77.5°	133.4	142.0	150.8	159.6	168.2	177.6	187.4	197.2	207.0	216.8	223.1
80°	109.2	118.2	127.1	136.0	145.0	154.3	164.1	173.9	183.7	193.5	200.2
82.5°	85.2	94.4	103.8	113.0	122.2	131.9	141.7	151.5	161.3	171.1	177.9
85°	53.2	62.5	71.8	81.2	90.6	100.3	110.3	120.3	130.4	140.3	147.0
87.5°	29.8	39.1	48.5	57.7	66.9	76.3	86.7	96.5	106.4	116.4	122.8
90°	16.6	26.6	37.1	46.6	56.0	65.2	78.0	87.7	98.3	109.0	114.9
92.5°	21.4	32.1	45.2	59.9	75.7	95.7	132.6	183.9	234.1	264.9	242.8
95°	30.8	39.8	52.5	66.8	87.1	117.9	173.8	271.1	408.8	525.5	543.8
97.5°	43.6	50.0	61.0	73.7	91.1	117.7	162.8	244.7	381.4	542.5	652.9
100°	51.9	57.7	67.2	79.5	95.5	120.0	160.3	229.8	348.2	508.5	652.1
102.5°	60.5	66.4	74.8	86.0	100.9	123.9	161.2	223.1	325.0	467.9	615.7
105°	71.9	78.0	85.1	96.0	110.2	132.1	166.2	219.0	302.6	418.9	550.8
107.5°	86.5	91.3	97.6	108.2	121.1	142.1	173.6	222.1	294.2	389.0	497.6
110°	95.7	99.8	105.7	115.3	128.0	148.0	179.5	224.9	291.8	377.6	470.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	104.3	108.2	114.0	122.8	135.3	154.9	185.1	228.1	290.8	369.8	452.8
115°	116.8	120.4	126.2	133.6	145.8	164.9	193.5	232.9	290.0	361.7	434.3
117.5°	130.7	133.5	138.0	145.2	155.9	174.8	202.0	238.3	289.7	355.2	422.4
120°	139.4	141.2	145.6	152.2	162.0	180.6	207.5	242.0	289.8	351.1	415.2
122.5°	148.1	149.2	153.2	158.7	168.9	186.6	213.2	245.5	290.0	346.7	407.7
125°	158.3	160.2	163.2	168.9	178.9	196.7	221.6	251.9	291.3	341.0	396.8
127.5°	168.1	169.7	173.2	179.8	190.2	207.5	230.5	257.4	291.2	333.8	383.0
130°	173.0	174.8	178.9	186.7	196.7	214.1	235.8	260.4	291.3	329.3	374.2
132.5°	178.5	180.0	185.4	192.7	203.6	219.7	240.8	264.2	291.9	325.7	366.6
135°	185.4	187.5	192.8	202.0	213.3	228.1	247.4	268.2	291.9	319.2	354.0
137.5°	193.2	195.0	200.7	209.2	220.7	234.3	251.7	270.4	290.8	314.5	343.5
140°	198.8	200.2	205.9	214.8	225.8	238.7	255.1	272.6	291.1	311.7	337.7
142.5°	204.0	205.6	211.0	219.7	230.5	242.9	258.4	274.3	291.5	310.1	333.2
145°	212.4	213.7	218.9	226.1	236.1	247.9	261.8	276.4	292.0	308.6	327.2
147.5°	221.9	222.2	226.7	234.2	242.5	253.1	266.2	278.8	292.5	306.7	322.1
150°	227.9	228.2	232.3	238.6	246.4	256.5	268.3	280.1	292.5	305.4	318.9
152.5°	232.7	232.7	237.0	243.0	250.2	259.5	270.0	281.0	291.6	303.2	315.4
155°	240.3	240.9	244.1	249.5	255.4	263.4	272.6	281.7	290.3	300.0	310.2
157.5°	248.0	248.0	251.0	255.1	260.3	266.6	274.5	281.7	289.0	296.7	305.0
160°	252.7	252.7	254.9	258.6	262.9	268.8	275.3	281.7	287.7	294.1	301.1
162.5°	257.0	256.6	258.3	261.6	265.5	270.1	276.2	281.7	286.3	291.5	297.7
165°	261.8	261.8	262.9	265.6	268.3	271.5	276.4	280.7	283.9	287.7	292.0
167.5°	266.6	266.2	266.6	268.7	270.2	272.7	276.3	279.4	281.3	283.8	286.8
170°	268.8	268.3	268.8	270.4	271.5	273.1	275.8	278.5	279.6	281.2	283.3
172.5°	271.0	270.4	270.5	271.7	272.4	273.5	275.4	277.7	277.9	278.6	280.3
175°	273.1	272.6	272.6	273.1	273.7	273.7	274.8	276.4	275.8	275.8	276.9
177.5°	274.1	273.7	273.2	273.7	273.7	273.7	274.1	274.9	274.1	274.1	274.6
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	892.1	893.4	894.7	895.2	895.0	894.8	894.7	894.5
5°	889.9	891.6	893.3	894.2	893.9	893.7	893.5	893.2
7.5°	885.0	887.0	889.1	889.9	889.8	889.5	889.3	889.1
10°	880.2	882.2	884.3	885.1	885.0	884.7	884.5	884.3
12.5°	873.5	875.3	877.1	878.0	878.0	877.9	877.9	877.8
15°	861.2	863.2	865.2	866.1	865.9	865.6	865.4	865.2
17.5°	846.2	848.3	850.4	851.3	851.1	850.9	850.7	850.6
20°	834.5	836.8	839.1	840.2	840.2	840.2	840.2	840.2
22.5°	821.0	823.1	825.4	826.7	827.1	827.4	827.7	828.1
25°	799.9	802.4	804.8	806.2	806.3	806.6	806.8	807.1
27.5°	776.3	778.5	780.9	782.1	782.4	782.7	783.0	783.2
30°	759.8	762.2	764.7	766.2	766.7	767.0	767.5	768.0
32.5°	742.9	745.7	748.5	750.2	750.5	751.0	751.5	752.0
35°	716.0	719.2	722.3	724.2	724.8	725.5	726.2	726.9
37.5°	688.1	691.3	694.4	696.4	697.0	697.8	698.4	699.2
40°	668.4	671.8	675.0	677.1	678.1	678.9	679.9	680.7
42.5°	649.0	652.7	656.4	658.6	659.3	660.1	660.8	661.5
45°	619.2	622.9	626.7	629.1	630.3	631.4	632.5	633.6
47.5°	587.5	591.4	595.4	597.9	599.4	600.7	602.0	603.3
50°	565.3	569.8	574.2	577.1	578.4	579.9	581.2	582.5
52.5°	542.9	547.3	551.8	554.7	556.0	557.3	558.6	560.1
55°	509.2	513.7	518.1	521.0	522.4	523.7	525.0	526.3
57.5°	473.8	479.1	484.4	487.7	488.9	490.1	491.4	492.7
60°	449.4	454.5	459.6	463.1	464.9	466.7	468.4	470.2
62.5°	425.3	430.5	435.5	439.0	440.8	442.6	444.3	446.1
65°	388.1	393.7	399.3	402.9	404.7	406.5	408.2	410.0
67.5°	351.6	357.2	362.9	366.6	368.3	370.0	371.8	373.5
70°	325.8	331.9	337.9	341.7	343.2	344.8	346.3	347.9
72.5°	301.4	307.3	313.1	316.9	318.6	320.4	322.1	323.9
75°	264.1	270.3	276.6	280.7	282.8	284.7	286.7	288.7
77.5°	229.4	235.7	242.0	246.3	248.5	250.5	252.7	254.9
80°	206.9	213.6	220.3	224.4	226.2	228.0	229.8	231.6
82.5°	184.7	191.6	198.5	202.9	204.8	206.8	208.8	210.8
85°	153.7	160.4	167.1	171.5	173.8	176.0	178.2	180.5
87.5°	129.3	135.9	142.5	146.7	148.7	150.8	152.7	154.7
90°	121.9	128.8	135.8	140.0	142.3	144.6	145.8	147.6
92.5°	212.6	192.7	182.8	176.1	171.5	170.4	170.3	172.1
95°	497.7	420.4	354.3	306.1	281.8	267.2	259.5	254.5
97.5°	681.4	656.2	609.4	557.2	520.5	490.0	475.8	466.6
100°	736.7	753.5	733.1	697.1	651.9	620.7	606.1	603.3
102.5°	729.2	788.4	801.9	789.2	762.1	740.2	724.9	723.2
105°	679.5	778.1	836.9	862.6	865.4	863.0	857.2	855.7
107.5°	612.1	716.6	797.0	848.6	876.8	890.6	897.6	900.6
110°	571.2	669.3	752.4	815.0	855.0	879.3	890.8	897.4



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CATALOG NUMBER: SA4XXDIP-C795D590U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	539.7	627.0	705.6	768.1	813.1	842.3	857.6	867.2
115°	506.4	577.5	645.3	700.1	744.1	778.0	796.7	802.6
117.5°	486.5	545.9	600.0	647.0	685.0	713.9	733.1	738.2
120°	476.2	530.6	578.1	619.3	651.8	677.2	693.0	700.7
122.5°	466.9	519.7	563.3	599.7	627.3	649.1	662.5	670.1
125°	452.7	503.1	544.5	576.8	599.7	616.6	628.2	632.7
127.5°	435.5	483.7	524.7	555.5	578.6	594.0	604.2	608.9
130°	422.8	469.4	509.9	541.1	564.5	579.3	589.2	593.8
132.5°	410.3	454.0	493.5	524.6	547.5	564.0	573.5	578.2
135°	391.4	430.0	466.4	495.7	518.5	534.9	544.8	549.4
137.5°	374.9	407.7	438.7	465.1	486.4	502.3	510.5	515.5
140°	365.3	393.5	420.6	445.2	465.1	478.1	486.7	492.1
142.5°	357.0	381.8	405.1	426.4	444.0	455.9	463.5	467.5
145°	345.7	365.3	382.8	399.0	413.3	423.3	429.6	433.2
147.5°	336.4	351.1	364.2	376.5	387.1	395.6	400.4	402.1
150°	331.8	344.1	354.9	364.6	373.2	380.1	383.3	383.9
152.5°	327.0	337.6	347.5	355.5	362.8	368.5	370.4	371.0
155°	319.9	328.5	336.6	343.0	348.5	352.7	354.3	354.3
157.5°	312.3	319.5	326.2	331.4	335.5	338.7	339.7	339.7
160°	307.6	313.5	319.3	323.7	326.9	330.2	330.6	330.6
162.5°	302.8	307.8	312.5	316.4	318.8	322.0	322.5	322.1
165°	296.2	299.4	303.2	305.9	308.1	310.2	309.7	309.2
167.5°	289.9	292.4	295.4	297.0	298.1	299.4	299.4	299.0
170°	286.1	287.7	289.8	291.4	292.5	293.0	292.5	292.5
172.5°	282.6	283.8	285.1	286.3	286.9	287.5	286.9	286.1
175°	278.0	278.5	279.6	279.6	279.6	280.7	279.6	278.5
177.5°	274.9	275.4	275.4	275.8	275.4	275.8	274.9	274.1
180°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7

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