

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: P332585

Luminaire Tested: **SA4XXDIP-C795D365U835-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332585
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-C795D365U835-4F0-1E-UDD-D4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

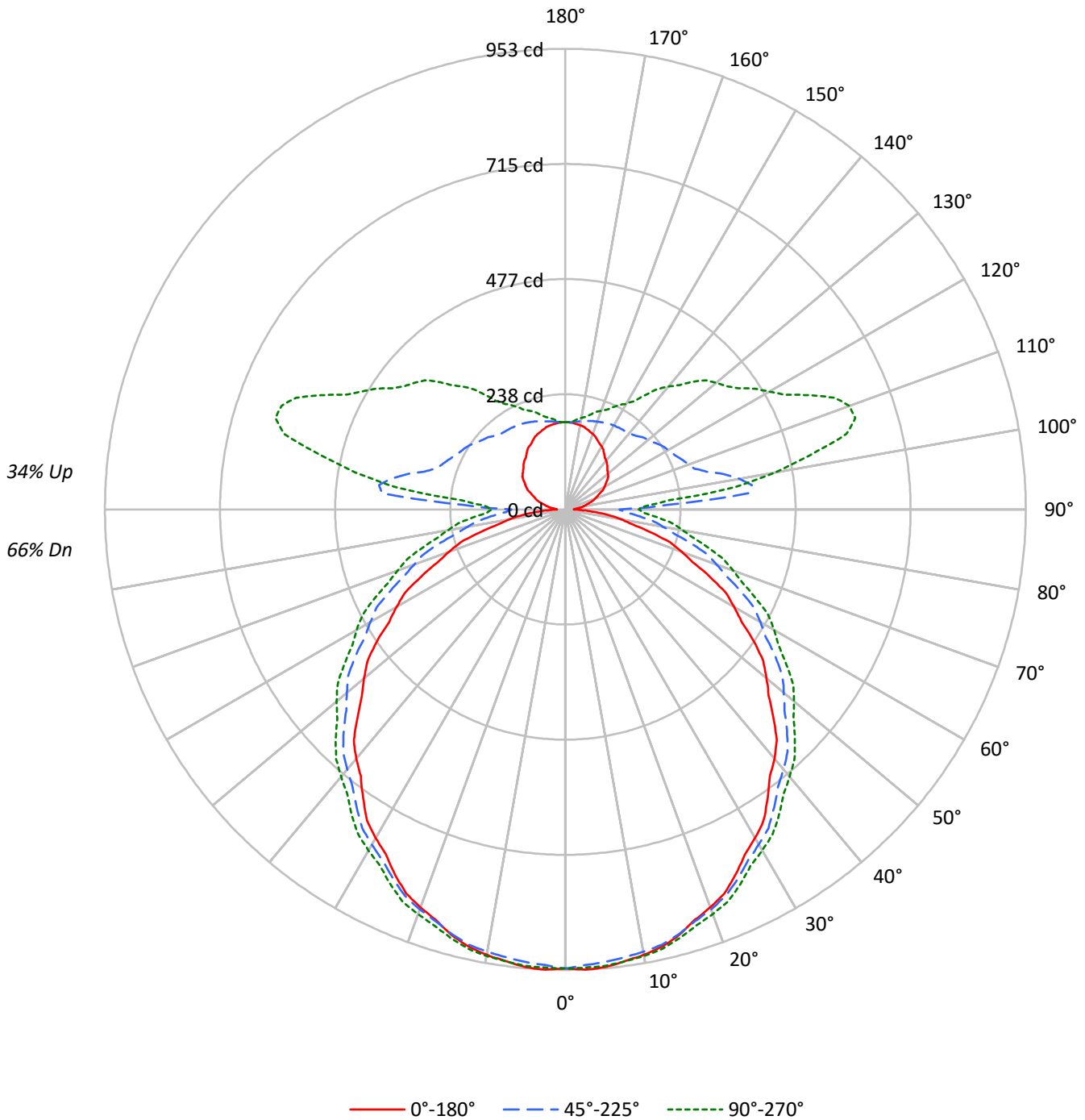
Lumens per Lamp: N/A
Luminaire Lumens: 4547.3 lumens
Efficiency: N/A
Efficacy: 129.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

Input Watts (W): 35
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	
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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	100	95	90	86	94	89	85	82	79	76	73	69	67	65	60	59	57	53
2	91	82	75	70	85	77	71	66	68	64	59	60	56	53	52	50	47	43
3	82	72	64	57	77	68	60	55	60	54	49	53	48	44	46	42	39	36
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	30
5	69	56	48	41	64	53	45	39	47	41	36	42	36	32	37	32	29	26
6	63	50	42	36	59	48	40	34	43	36	31	38	32	28	33	29	25	23
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	22	20
8	54	41	33	27	51	39	32	26	35	29	24	31	26	22	28	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18	16
10	47	35	27	22	44	33	26	21	30	24	20	27	22	18	24	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7668	7668	7668
5°	7692	7494	7516
10°	7645	7371	7366
15°	7577	7230	7190
20°	7473	7073	7019
25°	7357	6898	6831
30°	7231	6723	6637
35°	7088	6544	6468
40°	6974	6374	6291
45°	6804	6217	6140
50°	6661	6036	5980
55°	6513	5866	5792
60°	6282	5649	5621
65°	6029	5415	5409
70°	5722	5149	5165
75°	5296	4857	4943
80°	4819	4575	4724
85°	4219	4325	4598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	2.0
10°-20°	257.7	5.7
20°-30°	389.7	8.6
30°-40°	471.5	10.4
40°-50°	498.5	11.0
50°-60°	469.1	10.3
60°-70°	389.2	8.6
70°-80°	273.4	6.0
80°-90°	155.6	3.4
90°-100°	221.7	4.9
100°-110°	338.4	7.4
110°-120°	287.8	6.3
120°-130°	229.5	5.0
130°-140°	181.0	4.0
140°-150°	132.0	2.9
150°-160°	91.2	2.0
160°-170°	53.7	1.2
170°-180°	17.5	0.4
0°-30°	737.4	16.2
0°-40°	1208.8	26.6
0°-60°	2176.4	47.9
0°-90°	2994.6	65.9
90°-120°	847.9	18.6
90°-150°	1390.4	30.6
90°-180°	1553.0	34.2
0°-180°	4547.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	951	948	940	948	948	90
15°	912	912	909	918	918	257
25°	834	840	844	855	856	384
35°	730	742	753	767	771	457
45°	608	629	649	666	672	470
55°	476	499	531	551	558	424
65°	330	364	400	426	435	327
75°	183	223	267	296	306	195
85°	56	101	149	180	192	60
90°	17	63	112	142	152	12
95°	26	86	381	263	217	24
105°	51	92	302	595	603	55
115°	79	109	257	470	558	79
125°	106	125	236	387	437	94
135°	123	146	214	326	374	95
145°	140	159	203	259	289	88
155°	158	171	197	223	233	73
165°	172	177	189	200	203	49
175°	180	180	181	184	183	17
180°	180	180	180	180	180	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	953.3	952.7	952.1	951.6	951.0	950.0	948.4	946.9	945.4	943.9	945.2
5°	950.9	950.2	949.5	948.8	948.1	946.9	945.2	943.6	941.9	940.3	942.2
7.5°	942.8	942.4	942.0	941.6	941.1	940.2	938.9	937.5	936.1	934.8	936.9
10°	936.0	935.8	935.6	935.3	935.1	934.4	933.2	932.0	930.8	929.6	931.8
12.5°	926.7	926.6	926.6	926.5	926.5	926.1	925.3	924.4	923.6	922.8	924.8
15°	911.6	911.8	912.0	912.3	912.5	912.3	911.6	910.9	910.1	909.4	911.6
17.5°	890.9	891.6	892.3	893.1	893.8	894.0	893.9	893.8	893.6	893.5	895.7
20°	876.5	877.2	877.9	878.6	879.3	879.8	880.0	880.2	880.5	880.7	883.1
22.5°	860.3	861.2	862.1	863.0	863.9	864.6	865.0	865.4	865.8	866.3	868.6
25°	833.9	835.3	836.8	838.2	839.6	840.7	841.4	842.1	842.8	843.5	846.1
27.5°	804.6	806.6	808.7	810.8	812.9	814.5	815.6	816.6	817.7	818.8	821.2
30°	785.0	786.9	788.8	790.7	792.6	794.3	796.0	797.6	799.3	800.9	803.5
32.5°	763.7	766.0	768.3	770.5	772.8	774.8	776.7	778.5	780.4	782.2	785.2
35°	729.7	732.5	735.4	738.2	741.0	743.6	746.0	748.4	750.7	753.1	756.4
37.5°	695.4	698.7	702.0	705.2	708.5	711.6	714.5	717.4	720.4	723.3	726.7
40°	673.3	676.4	679.4	682.5	685.6	688.8	692.1	695.4	698.7	702.0	705.6
42.5°	647.8	651.2	654.7	658.1	661.6	665.2	669.1	673.0	676.9	680.7	684.7
45°	608.4	612.9	617.4	621.9	626.4	630.9	635.4	639.9	644.3	648.8	652.9
47.5°	570.8	575.4	580.0	584.7	589.3	594.2	599.4	604.6	609.8	615.0	619.2
50°	543.5	548.7	553.9	559.1	564.3	569.5	574.7	579.9	585.1	590.3	595.1
52.5°	516.3	521.5	526.7	531.9	537.1	542.7	548.6	554.6	560.6	566.5	571.2
55°	476.5	481.5	486.5	491.4	496.4	502.4	509.5	516.6	523.7	530.8	535.5
57.5°	432.1	438.2	444.4	450.5	456.6	463.2	470.3	477.3	484.4	491.4	497.0
60°	403.1	409.3	415.4	421.6	427.7	434.7	442.5	450.3	458.1	465.9	471.3
62.5°	375.0	381.8	388.5	395.2	401.9	409.2	417.0	424.8	432.6	440.4	445.8
65°	329.7	337.3	344.9	352.4	360.0	367.8	375.8	383.9	391.9	399.9	405.8
67.5°	286.1	294.2	302.2	310.2	318.3	326.6	335.2	343.8	352.4	361.0	367.0
70°	256.3	264.4	272.4	280.5	288.5	297.0	306.0	315.0	323.9	332.9	339.3
72.5°	227.4	235.6	243.9	252.1	260.3	269.2	278.8	288.3	297.9	307.4	313.6
75°	183.0	191.7	200.4	209.2	217.9	227.3	237.2	247.1	257.1	267.0	273.6
77.5°	141.5	150.7	160.0	169.3	178.5	188.4	198.8	209.2	219.6	230.0	236.7
80°	115.9	125.4	134.8	144.3	153.8	163.7	174.1	184.5	194.9	205.3	212.4
82.5°	90.4	100.2	110.1	119.9	129.7	139.9	150.3	160.7	171.1	181.5	188.7
85°	56.4	66.3	76.2	86.2	96.1	106.4	117.0	127.6	138.3	148.9	156.0
87.5°	31.6	41.3	51.2	60.9	70.6	80.6	91.4	101.8	112.2	122.7	129.5
90°	17.4	27.5	38.0	47.9	57.7	67.5	79.8	89.9	100.8	111.7	118.2
92.5°	20.2	30.5	42.4	55.2	68.9	85.6	113.7	151.3	188.1	212.3	200.2
95°	25.5	34.4	45.7	58.1	74.4	98.0	138.4	206.0	300.2	380.6	395.1
97.5°	33.5	40.2	49.9	60.9	74.9	95.5	128.8	186.2	279.8	389.3	464.2
100°	38.6	44.7	53.3	63.7	76.6	95.6	125.6	174.8	256.1	365.0	461.9
102.5°	44.2	50.2	57.8	67.1	78.9	96.9	124.8	168.9	239.3	336.7	436.2
105°	50.9	56.7	63.2	72.2	83.3	100.2	126.0	164.0	222.3	302.1	391.0
107.5°	60.5	65.0	70.7	79.1	89.0	105.2	129.1	164.0	214.6	280.0	353.6
110°	66.1	70.1	75.2	82.8	92.4	107.8	131.6	164.6	211.8	271.3	334.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	71.5	75.1	80.1	87.0	96.3	111.2	134.1	165.3	209.6	264.5	321.1
115°	79.2	82.4	87.0	92.6	101.5	115.9	137.6	166.3	206.8	256.7	306.5
117.5°	88.3	90.6	94.0	99.2	106.8	120.8	141.3	167.9	204.4	250.0	296.1
120°	93.7	95.1	98.3	102.9	109.6	123.3	143.6	168.8	202.9	245.8	289.7
122.5°	99.3	100.2	102.8	106.5	113.3	126.2	146.1	169.8	201.5	241.2	283.2
125°	105.7	106.9	108.7	112.4	118.9	131.6	150.2	172.4	200.6	235.5	273.9
127.5°	112.0	112.9	115.3	119.5	126.2	138.3	155.2	174.6	198.6	228.3	262.3
130°	114.9	116.1	118.6	123.7	130.2	142.2	158.0	175.6	197.4	223.8	254.9
132.5°	118.5	119.4	122.9	127.7	134.7	145.8	160.8	177.4	196.7	220.1	248.5
135°	122.6	124.1	127.6	133.6	141.0	151.0	164.4	178.7	194.9	213.5	237.8
137.5°	127.8	128.9	132.6	138.1	145.5	154.6	166.3	178.9	192.6	208.5	228.9
140°	131.5	132.3	136.0	141.7	148.9	157.4	168.2	179.8	192.0	205.7	224.0
142.5°	134.6	135.6	139.2	144.8	151.9	160.0	170.2	180.5	191.8	204.0	220.2
145°	140.0	140.8	144.1	148.8	155.3	162.9	172.1	181.7	191.9	202.9	215.6
147.5°	146.3	146.4	149.2	154.1	159.4	166.3	174.9	183.3	192.3	201.6	211.8
150°	150.2	150.3	152.9	156.9	162.0	168.6	176.4	184.1	192.3	200.7	209.6
152.5°	153.0	153.1	155.8	159.7	164.4	170.6	177.5	184.7	191.7	199.3	207.3
155°	158.0	158.3	160.5	164.0	167.9	173.2	179.2	185.2	190.9	197.2	203.9
157.5°	163.0	163.0	165.0	167.7	171.1	175.3	180.4	185.2	189.9	195.0	200.5
160°	166.1	166.1	167.5	170.0	172.8	176.7	181.0	185.2	189.1	193.3	197.9
162.5°	168.9	168.7	169.8	172.0	174.5	177.6	181.5	185.2	188.2	191.6	195.7
165°	172.1	172.1	172.8	174.6	176.4	178.5	181.7	184.5	186.6	189.1	191.9
167.5°	175.3	174.9	175.3	176.6	177.6	179.3	181.6	183.6	184.9	186.5	188.5
170°	176.7	176.4	176.7	177.8	178.5	179.5	181.3	183.1	183.8	184.8	186.3
172.5°	178.1	177.8	177.8	178.6	179.0	179.8	181.0	182.5	182.7	183.1	184.3
175°	179.5	179.2	179.2	179.5	179.9	179.9	180.6	181.7	181.3	181.3	182.0
177.5°	180.2	179.9	179.6	179.9	179.9	179.9	180.2	180.7	180.2	180.2	180.5
180°	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	946.5	947.9	949.2	949.8	949.6	949.4	949.2	949.0
5°	944.1	946.0	947.8	948.7	948.4	948.2	948.0	947.7
7.5°	939.0	941.1	943.3	944.2	944.0	943.7	943.5	943.3
10°	933.9	936.0	938.2	939.1	938.9	938.6	938.4	938.2
12.5°	926.7	928.7	930.6	931.5	931.5	931.4	931.4	931.3
15°	913.7	915.8	917.9	918.9	918.7	918.4	918.2	917.9
17.5°	897.8	900.0	902.2	903.2	903.0	902.8	902.6	902.4
20°	885.4	887.8	890.2	891.4	891.4	891.4	891.4	891.4
22.5°	871.0	873.3	875.7	877.1	877.5	877.8	878.2	878.6
25°	848.7	851.3	853.9	855.3	855.5	855.8	856.0	856.3
27.5°	823.6	826.0	828.5	829.8	830.1	830.4	830.7	830.9
30°	806.1	808.7	811.3	812.9	813.4	813.8	814.3	814.8
32.5°	788.2	791.2	794.1	795.9	796.3	796.8	797.3	797.8
35°	759.7	763.0	766.3	768.3	769.0	769.7	770.5	771.2
37.5°	730.0	733.4	736.7	738.8	739.5	740.3	741.0	741.8
40°	709.1	712.7	716.2	718.4	719.4	720.3	721.3	722.2
42.5°	688.6	692.5	696.4	698.8	699.5	700.3	701.1	701.8
45°	656.9	660.9	664.9	667.5	668.7	669.9	671.1	672.2
47.5°	623.3	627.5	631.7	634.4	635.9	637.3	638.7	640.1
50°	599.8	604.5	609.2	612.3	613.7	615.2	616.6	618.0
52.5°	576.0	580.7	585.4	588.5	589.9	591.3	592.7	594.2
55°	540.2	545.0	549.7	552.8	554.2	555.6	557.0	558.4
57.5°	502.7	508.3	513.9	517.4	518.7	520.0	521.4	522.7
60°	476.8	482.2	487.6	491.3	493.2	495.1	497.0	498.9
62.5°	451.2	456.7	462.1	465.8	467.7	469.6	471.4	473.3
65°	411.8	417.7	423.6	427.5	429.4	431.3	433.1	435.0
67.5°	373.0	379.0	385.0	388.9	390.8	392.6	394.5	396.3
70°	345.7	352.1	358.5	362.5	364.1	365.8	367.4	369.1
72.5°	319.8	326.0	332.2	336.2	338.0	339.9	341.7	343.6
75°	280.2	286.8	293.5	297.8	300.0	302.1	304.2	306.3
77.5°	243.4	250.1	256.8	261.3	263.6	265.8	268.1	270.4
80°	219.5	226.6	233.7	238.1	240.0	241.9	243.8	245.7
82.5°	196.0	203.3	210.6	215.3	217.3	219.4	221.5	223.6
85°	163.1	170.2	177.3	182.0	184.4	186.7	189.1	191.5
87.5°	136.5	143.4	150.3	154.8	156.9	159.1	161.1	163.2
90°	125.4	132.6	139.8	144.2	146.4	148.7	150.2	152.1
92.5°	182.9	172.4	168.4	165.6	163.4	163.3	164.0	165.9
95°	367.2	318.8	277.8	247.8	232.6	223.8	219.5	217.1
97.5°	485.3	471.1	442.7	409.9	386.6	367.4	358.8	353.5
100°	519.8	533.3	522.4	500.2	471.1	451.2	442.3	441.1
102.5°	513.2	554.5	565.7	558.8	541.8	528.0	518.7	518.3
105°	477.9	544.9	585.8	604.2	606.8	605.9	602.8	602.6
107.5°	431.1	502.1	557.1	592.4	611.6	621.3	626.6	629.2
110°	402.7	469.2	525.9	568.5	595.5	612.2	620.4	625.5



TEST NUMBER: P332585

CATALOG NUMBER: SA4XXDIP-C795D365U835-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	380.2	439.5	493.2	535.7	566.0	585.9	596.7	603.7
115°	355.9	404.5	451.1	488.4	518.0	540.9	553.8	558.3
117.5°	340.1	381.0	418.5	450.6	476.4	496.1	509.4	513.5
120°	331.6	369.1	402.2	430.6	452.6	470.0	481.1	486.9
122.5°	323.9	360.4	390.8	416.0	434.8	449.8	459.2	464.8
125°	312.3	347.2	376.1	398.5	414.0	425.7	433.8	437.4
127.5°	298.4	331.7	360.3	381.7	397.5	408.2	415.5	419.2
130°	288.5	320.7	348.9	370.5	386.4	396.7	403.8	407.3
132.5°	278.8	309.1	336.6	358.1	373.7	385.1	391.9	395.4
135°	263.8	290.6	315.9	336.2	351.8	363.1	370.1	373.7
137.5°	250.9	273.7	295.4	313.7	328.1	339.0	344.8	348.6
140°	243.3	263.0	282.0	298.9	312.5	321.4	327.6	331.6
142.5°	236.9	254.2	270.5	285.3	297.2	305.4	310.8	313.8
145°	228.3	241.8	253.8	264.9	274.6	281.6	286.1	288.8
147.5°	221.3	231.0	239.7	247.9	255.2	261.1	264.5	265.9
150°	218.1	226.2	233.3	239.6	245.3	249.9	252.0	252.3
152.5°	215.0	222.0	228.5	233.7	238.5	242.2	243.5	243.9
155°	210.3	215.9	221.2	225.5	229.0	231.8	232.9	232.9
157.5°	205.3	210.0	214.5	217.9	220.5	222.7	223.3	223.3
160°	202.2	206.0	209.9	212.8	214.9	217.0	217.4	217.4
162.5°	199.1	202.4	205.4	208.0	209.5	211.6	212.0	211.7
165°	194.7	196.9	199.3	201.1	202.5	203.9	203.6	203.2
167.5°	190.6	192.2	194.2	195.2	195.9	196.9	196.8	196.5
170°	188.0	189.1	190.5	191.6	192.3	192.6	192.3	192.3
172.5°	185.8	186.5	187.4	188.2	188.6	188.9	188.6	188.0
175°	182.7	183.1	183.8	183.8	183.8	184.5	183.8	183.1
177.5°	180.7	181.0	181.0	181.3	181.0	181.3	180.7	180.2
180°	179.9	179.9	179.9	179.9	179.9	179.9	179.9	179.9

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