

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: P331958-830

Luminaire Tested: **S123DIP-S775D365U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331958-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D365U830-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4412.9 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

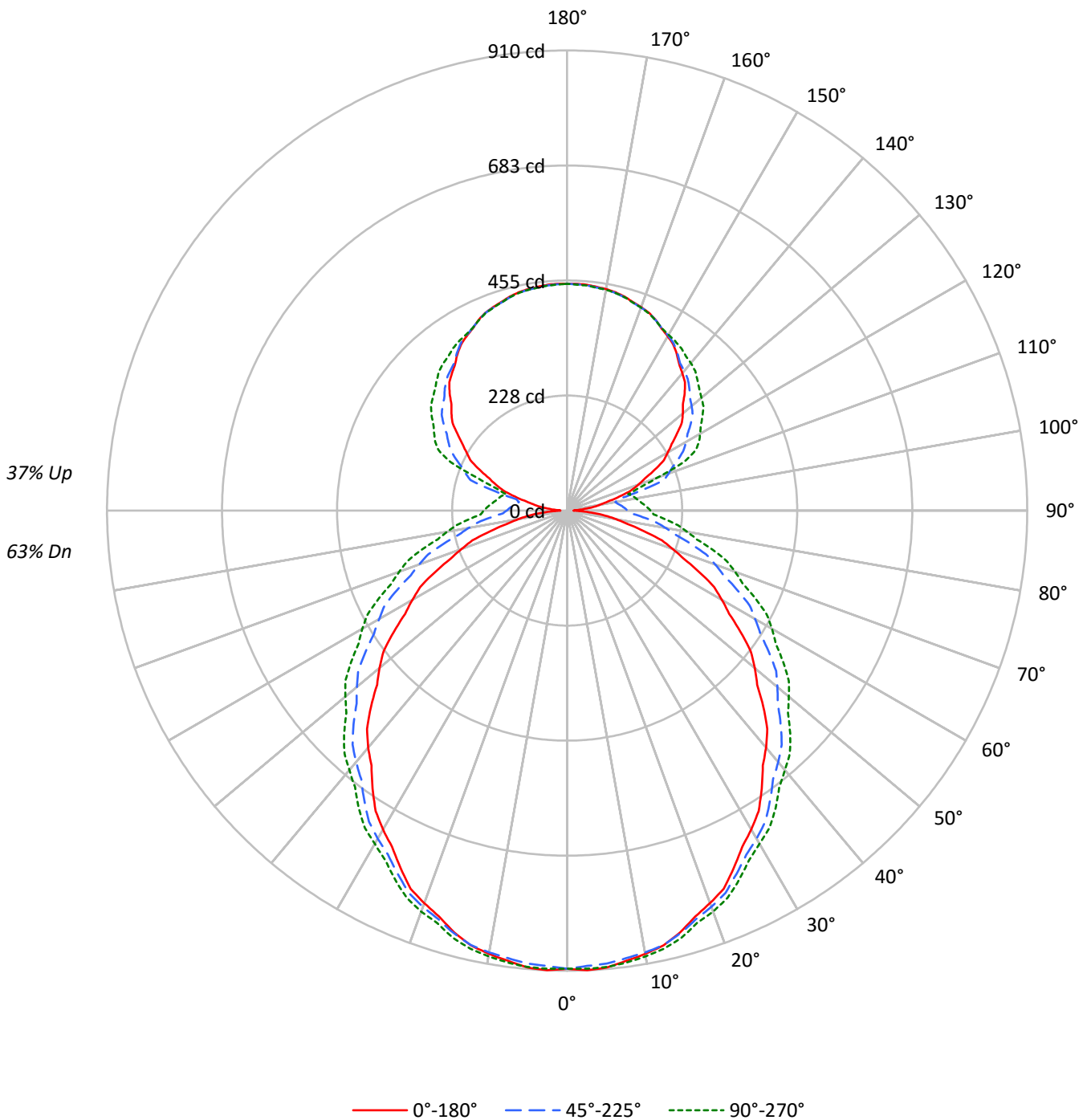
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P331958-830

CATALOG NUMBER: S123DIP-S775D365U830-4F0-1E-UDD-D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	91	91	91	79	79	79	68	68	68
1	99	94	90	86	93	89	85	81	78	75	72	68	65	63	58	57	55
2	90	82	75	69	84	77	71	65	67	63	58	59	55	52	51	48	45
3	82	71	63	57	76	67	60	54	59	53	49	51	47	43	44	41	38
4	75	63	54	48	70	59	52	46	52	46	41	46	41	37	39	36	32
5	69	56	47	41	64	53	45	39	47	40	35	41	36	32	35	31	28
6	63	50	42	35	59	47	40	34	42	35	31	37	32	28	32	28	25
7	58	45	37	31	54	43	35	30	38	32	27	33	28	24	29	25	22
8	54	41	33	27	51	39	31	26	35	28	24	31	25	22	27	23	19
9	50	38	30	24	47	36	28	23	32	26	21	28	23	19	25	21	18
10	47	35	27	22	44	33	26	21	29	23	19	26	21	18	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9752	9752	9752
5°	9782	9507	9512
10°	9694	9287	9240
15°	9570	9038	8945
20°	9390	8755	8621
25°	9171	8428	8278
30°	8945	8133	7931
35°	8692	7823	7655
40°	8450	7540	7358
45°	8182	7269	7122
50°	7918	7000	6860
55°	7627	6725	6625
60°	7343	6446	6385
65°	7051	6149	6098
70°	6611	5815	5805
75°	6055	5432	5506
80°	5416	5056	5164
85°	4828	4799	4966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.9	1.9
10°-20°	244.8	5.5
20°-30°	366.2	8.3
30°-40°	437.3	9.9
40°-50°	457.5	10.4
50°-60°	429.4	9.7
60°-70°	358.6	8.1
70°-80°	256.6	5.8
80°-90°	154.3	3.5
90°-100°	112.3	2.5
100°-110°	148.2	3.4
110°-120°	233.7	5.3
120°-130°	264.5	6.0
130°-140°	266.0	6.0
140°-150°	240.0	5.4
150°-160°	191.5	4.3
160°-170°	123.6	2.8
170°-180°	42.6	1.0
0°-30°	696.9	15.8
0°-40°	1134.2	25.7
0°-60°	2021.1	45.8
0°-90°	2790.5	63.2
90°-120°	494.2	11.2
90°-150°	1264.7	28.7
90°-180°	1622.0	36.8
0°-180°	4412.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	907	905	899	906	906	86
15°	864	866	866	875	874	243
25°	780	789	792	805	805	359
35°	671	687	700	714	718	420
45°	549	572	597	615	624	423
55°	418	451	486	512	521	375
65°	289	328	371	400	411	286
75°	157	203	253	284	297	168
85°	48	98	150	182	193	51
90°	13	65	120	153	165	10
95°	31	58	108	140	151	34
105°	107	134	147	118	125	113
115°	191	206	244	270	280	189
125°	265	270	298	319	327	237
135°	329	330	342	360	365	253
145°	378	379	380	388	393	236
155°	415	415	415	416	415	191
165°	438	437	437	439	437	124
175°	448	447	447	449	447	43
180°	448	448	448	448	448	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0
2.5°	909.9	909.4	908.9	908.3	907.9	906.8	905.5	904.1	902.7	901.3	902.7
5°	907.0	906.5	906.1	905.7	905.2	904.4	903.1	901.7	900.4	899.1	900.9
7.5°	898.1	898.1	898.2	898.3	898.4	897.9	896.5	895.3	894.0	892.8	894.9
10°	890.2	890.6	891.1	891.6	891.9	891.6	890.5	889.5	888.3	887.2	889.5
12.5°	880.7	881.4	881.9	882.6	883.2	883.2	882.4	881.7	880.9	880.1	882.1
15°	863.6	864.2	864.9	865.5	866.2	866.4	866.2	866.0	865.7	865.5	867.7
17.5°	841.9	843.2	844.5	845.7	847.1	847.7	847.6	847.5	847.4	847.3	849.3
20°	826.0	827.4	828.7	830.0	831.3	832.2	832.6	833.1	833.5	834.0	835.9
22.5°	809.5	810.8	812.1	813.4	814.7	815.7	816.3	816.9	817.6	818.1	820.7
25°	779.7	781.8	784.0	786.3	788.4	789.9	790.5	791.2	791.8	792.5	795.3
27.5°	749.7	752.1	754.7	757.1	759.7	761.6	763.0	764.4	765.8	767.2	769.7
30°	728.3	731.2	734.1	736.9	739.7	742.1	743.8	745.6	747.3	749.0	751.7
32.5°	704.6	707.8	711.1	714.3	717.5	720.2	722.5	724.8	727.1	729.3	732.2
35°	671.1	674.6	678.2	681.6	685.1	688.3	691.2	694.0	696.9	699.7	703.0
37.5°	635.6	639.5	643.5	647.4	651.4	655.1	658.6	662.1	665.6	669.1	672.9
40°	611.9	615.9	619.8	623.8	627.6	631.9	636.2	640.6	645.0	649.4	653.1
42.5°	585.8	590.7	595.5	600.3	605.1	609.8	614.3	619.0	623.5	628.1	632.2
45°	548.7	554.0	559.2	564.5	569.8	575.1	580.6	586.1	591.6	597.1	601.2
47.5°	509.8	515.9	521.8	527.7	533.7	539.8	546.1	552.3	558.6	564.9	569.6
50°	484.6	490.7	496.8	503.0	509.2	515.6	522.5	529.2	536.0	542.8	547.8
52.5°	457.7	464.2	470.7	477.2	483.7	490.7	498.2	505.7	513.2	520.7	525.9
55°	418.5	425.7	432.9	440.2	447.4	455.0	462.9	470.8	478.6	486.5	492.5
57.5°	380.1	387.7	395.2	402.7	410.4	418.4	427.1	435.7	444.3	453.0	458.9
60°	353.4	361.2	369.1	377.0	384.9	393.3	402.4	411.3	420.3	429.3	435.5
62.5°	328.0	336.1	344.2	352.2	360.3	369.1	378.6	388.1	397.7	407.2	413.3
65°	289.2	297.7	306.2	314.8	323.4	332.4	342.1	351.8	361.5	371.1	377.7
67.5°	249.7	258.7	267.9	276.9	286.0	295.5	305.3	315.1	324.9	334.8	342.0
70°	222.1	231.5	240.9	250.3	259.8	269.8	280.3	290.8	301.3	311.9	318.9
72.5°	196.8	206.2	215.7	225.1	234.5	244.7	255.5	266.5	277.3	288.1	295.4
75°	156.9	167.2	177.6	187.8	198.1	208.8	219.7	230.7	241.7	252.7	259.9
77.5°	122.2	132.6	143.0	153.4	163.7	174.5	185.6	196.6	207.6	218.7	226.3
80°	97.7	108.5	119.2	130.0	140.7	151.7	163.2	174.6	186.0	197.4	204.8
82.5°	76.3	87.3	98.2	109.1	120.1	131.3	142.9	154.5	166.1	177.7	185.1
85°	48.4	59.3	70.3	81.2	92.2	103.5	115.2	126.8	138.4	150.1	157.5
87.5°	26.3	37.4	48.4	59.6	70.6	81.8	93.2	104.6	115.9	127.3	134.9
90°	13.2	24.7	36.1	47.6	59.1	70.9	83.0	95.2	107.4	119.5	127.2
92.5°	18.2	27.7	37.2	46.7	56.2	66.8	78.5	90.3	102.0	113.8	121.5
95°	31.2	36.7	42.2	47.7	53.3	61.8	73.3	84.9	96.5	108.0	115.4
97.5°	50.5	56.8	63.2	69.6	76.0	81.6	86.5	91.4	96.4	101.3	108.5
100°	65.1	73.7	82.2	90.7	99.2	102.6	101.2	99.8	98.3	96.9	103.8
102.5°	82.0	89.4	96.7	104.2	111.5	113.9	111.1	108.4	105.8	103.0	107.4
105°	107.2	113.2	119.3	125.4	131.5	135.9	138.6	141.4	144.2	146.9	140.0
107.5°	132.7	137.9	143.0	148.1	153.3	160.8	170.8	180.8	190.8	200.8	197.1
110°	149.8	154.4	158.9	163.4	168.0	175.0	184.6	194.2	203.8	213.4	216.6



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CATALOG NUMBER: S123DIP-S775D365U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	166.8	170.6	174.4	178.2	182.0	188.5	197.7	207.0	216.2	225.5	231.0
115°	191.1	194.2	197.3	200.4	203.4	209.2	217.8	226.4	234.9	243.5	249.5
117.5°	215.4	217.5	219.7	221.9	224.0	229.0	236.8	244.5	252.3	260.0	265.8
120°	229.8	231.5	233.3	235.1	236.9	241.4	248.9	256.4	263.8	271.3	276.9
122.5°	245.2	246.4	247.4	248.5	249.7	253.8	261.0	268.2	275.3	282.5	287.8
125°	265.4	266.0	266.6	267.2	267.8	271.5	278.1	284.7	291.3	298.0	302.7
127.5°	286.0	286.3	286.7	287.1	287.4	290.4	296.1	301.6	307.3	312.9	317.4
130°	298.7	299.1	299.4	299.8	300.2	302.7	307.5	312.1	316.8	321.5	325.9
132.5°	310.2	310.8	311.3	311.8	312.4	314.5	318.3	322.1	325.7	329.5	333.8
135°	328.7	328.9	329.1	329.4	329.6	331.1	333.8	336.5	339.2	342.0	346.1
137.5°	344.5	344.9	345.3	345.6	346.0	347.0	348.6	350.1	351.6	353.1	356.9
140°	354.4	354.8	355.2	355.7	356.2	356.8	357.7	358.5	359.5	360.3	363.9
142.5°	364.2	364.5	364.8	365.0	365.3	365.6	366.0	366.4	366.6	367.0	370.2
145°	378.1	378.3	378.6	378.9	379.2	379.5	379.6	379.8	379.8	380.0	381.9
147.5°	390.0	390.4	390.7	391.1	391.3	391.6	391.8	391.9	392.1	392.2	392.9
150°	398.0	398.2	398.4	398.7	398.9	399.1	399.3	399.4	399.5	399.6	399.8
152.5°	405.2	405.3	405.4	405.5	405.6	405.8	405.8	405.9	406.0	406.0	406.3
155°	415.4	415.2	415.0	414.9	414.7	414.7	414.8	414.8	414.9	415.0	415.4
157.5°	423.2	423.2	423.2	423.1	423.1	423.1	423.0	422.9	422.8	422.8	423.2
160°	428.0	427.9	427.8	427.7	427.7	427.6	427.5	427.4	427.4	427.3	427.7
162.5°	432.5	432.3	432.2	432.0	431.8	431.6	431.5	431.5	431.4	431.3	431.8
165°	438.0	437.7	437.5	437.3	437.1	437.0	436.9	436.8	436.7	436.7	437.2
167.5°	442.2	442.0	441.7	441.4	441.0	440.9	440.9	440.9	440.9	440.9	441.5
170°	444.6	444.3	444.0	443.7	443.5	443.3	443.3	443.3	443.3	443.3	443.9
172.5°	446.2	445.9	445.5	445.2	444.8	444.7	444.7	444.8	444.9	444.9	445.5
175°	448.3	447.9	447.5	447.2	446.9	446.7	446.8	446.9	446.9	447.0	447.5
177.5°	448.8	448.6	448.3	448.0	447.6	447.5	447.6	447.6	447.7	447.8	448.3
180°	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0
2.5°	904.1	905.5	906.8	907.5	907.3	907.1	906.9	906.8
5°	902.6	904.4	906.1	906.8	906.6	906.4	906.3	906.0
7.5°	897.1	899.4	901.5	902.5	902.2	902.0	901.7	901.4
10°	891.6	893.8	896.0	896.9	896.5	896.0	895.6	895.1
12.5°	884.2	886.2	888.2	889.0	888.5	888.2	887.7	887.2
15°	869.9	872.1	874.3	875.2	875.1	874.9	874.6	874.4
17.5°	851.3	853.3	855.3	856.1	855.8	855.5	855.2	854.9
20°	837.9	839.9	841.9	842.9	843.2	843.4	843.6	843.9
22.5°	823.1	825.7	828.1	829.3	829.2	829.1	829.0	828.8
25°	798.2	801.1	803.9	805.3	805.3	805.3	805.3	805.3
27.5°	772.1	774.6	777.0	778.4	778.5	778.7	778.9	779.1
30°	754.3	757.0	759.6	760.9	760.9	760.9	760.9	760.9
32.5°	734.9	737.7	740.6	742.3	742.7	743.3	743.8	744.3
35°	706.3	709.6	712.8	715.0	715.9	716.7	717.6	718.5
37.5°	676.6	680.3	684.0	686.3	686.9	687.7	688.3	689.1
40°	656.9	660.5	664.3	666.6	667.5	668.4	669.2	670.1
42.5°	636.2	640.3	644.4	647.1	648.3	649.5	650.7	652.0
45°	605.4	609.5	613.8	616.7	618.5	620.2	622.0	623.8
47.5°	574.3	579.0	583.7	586.7	588.1	589.5	590.8	592.1
50°	552.9	557.9	563.0	566.3	567.8	569.3	570.9	572.4
52.5°	531.1	536.4	541.6	545.2	547.1	548.9	550.8	552.7
55°	498.4	504.4	510.2	514.1	515.9	517.6	519.3	521.1
57.5°	465.0	470.9	476.8	480.9	483.0	485.0	487.0	489.1
60°	441.6	447.7	453.8	458.2	460.5	463.0	465.4	467.8
62.5°	419.5	425.7	431.8	435.9	438.2	440.5	442.7	444.9
65°	384.3	390.8	397.4	401.8	404.0	406.1	408.4	410.6
67.5°	349.1	356.4	363.5	368.1	369.9	371.7	373.6	375.4
70°	325.9	332.9	340.0	344.5	346.8	348.9	351.1	353.4
72.5°	302.6	309.7	317.0	321.7	323.9	326.0	328.2	330.5
75°	267.1	274.4	281.6	286.5	289.2	291.8	294.5	297.1
77.5°	233.9	241.6	249.2	254.0	256.1	258.1	260.1	262.1
80°	212.3	219.7	227.2	232.1	234.2	236.4	238.7	240.8
82.5°	192.6	200.0	207.5	212.3	214.5	216.7	218.9	221.0
85°	164.9	172.4	179.8	184.6	186.8	189.1	191.2	193.4
87.5°	142.3	149.9	157.4	162.3	164.5	166.7	168.9	171.2
90°	135.1	142.8	150.5	155.6	157.9	160.2	162.6	164.9
92.5°	129.2	137.0	144.8	149.7	151.7	153.9	156.0	158.1
95°	122.6	130.0	137.3	142.0	144.2	146.5	148.6	150.8
97.5°	115.6	122.7	129.8	134.5	136.8	139.0	141.3	143.6
100°	110.7	117.7	124.7	129.3	131.6	133.8	136.1	138.4
102.5°	111.8	116.1	120.5	123.8	126.1	128.5	130.7	133.1
105°	133.1	126.1	119.1	116.7	118.9	120.9	123.1	125.2
107.5°	193.3	189.6	185.9	180.0	172.1	164.2	156.2	148.3
110°	219.9	223.2	226.4	223.7	214.8	205.9	197.2	188.3



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CATALOG NUMBER: S123DIP-S775D365U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	236.6	242.1	247.7	250.3	250.1	249.8	249.4	249.1
115°	255.5	261.5	267.5	271.5	273.6	275.6	277.7	279.7
117.5°	271.6	277.5	283.2	287.1	288.8	290.6	292.4	294.2
120°	282.6	288.1	293.8	297.4	299.0	300.5	302.0	303.5
122.5°	293.0	298.3	303.6	307.1	308.7	310.3	311.9	313.5
125°	307.6	312.3	317.1	320.3	322.0	323.7	325.3	327.0
127.5°	322.1	326.6	331.2	334.1	335.5	336.9	338.2	339.5
130°	330.4	334.9	339.3	342.1	343.3	344.5	345.6	346.9
132.5°	338.1	342.3	346.7	349.5	350.7	352.0	353.3	354.6
135°	350.2	354.4	358.5	361.1	362.0	362.9	363.7	364.6
137.5°	360.7	364.6	368.3	370.8	371.7	372.7	373.6	374.6
140°	367.5	371.1	374.7	376.9	377.9	378.8	379.8	380.7
142.5°	373.3	376.5	379.8	381.7	382.7	383.5	384.5	385.3
145°	383.8	385.8	387.7	389.0	389.9	390.8	391.6	392.6
147.5°	393.6	394.3	394.9	395.5	396.0	396.3	396.8	397.3
150°	400.0	400.1	400.3	400.5	400.7	400.9	401.1	401.3
152.5°	406.6	406.9	407.2	407.2	406.9	406.6	406.4	406.1
155°	415.8	416.1	416.5	416.4	416.0	415.6	415.1	414.6
157.5°	423.7	424.1	424.6	424.5	424.0	423.4	422.7	422.2
160°	428.2	428.7	429.1	429.0	428.6	428.0	427.5	427.0
162.5°	432.3	432.8	433.3	433.4	432.9	432.4	432.0	431.5
165°	437.8	438.5	439.0	439.0	438.6	438.0	437.5	437.0
167.5°	442.1	442.7	443.3	443.3	442.7	442.1	441.5	440.9
170°	444.5	445.1	445.6	445.6	445.1	444.5	443.9	443.3
172.5°	446.1	446.7	447.2	447.2	446.6	445.9	445.3	444.6
175°	448.0	448.6	449.0	449.0	448.5	447.8	447.2	446.7
177.5°	448.7	449.2	449.7	449.6	449.0	448.5	447.8	447.2
180°	448.3	448.3	448.3	448.3	448.3	448.3	448.3	448.3

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