

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: P332584-830

Luminaire Tested: **S124DIP-S795D365U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332584-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D365U830-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4248.0 lumens
Efficiency: N/A
Efficacy: 121.4 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

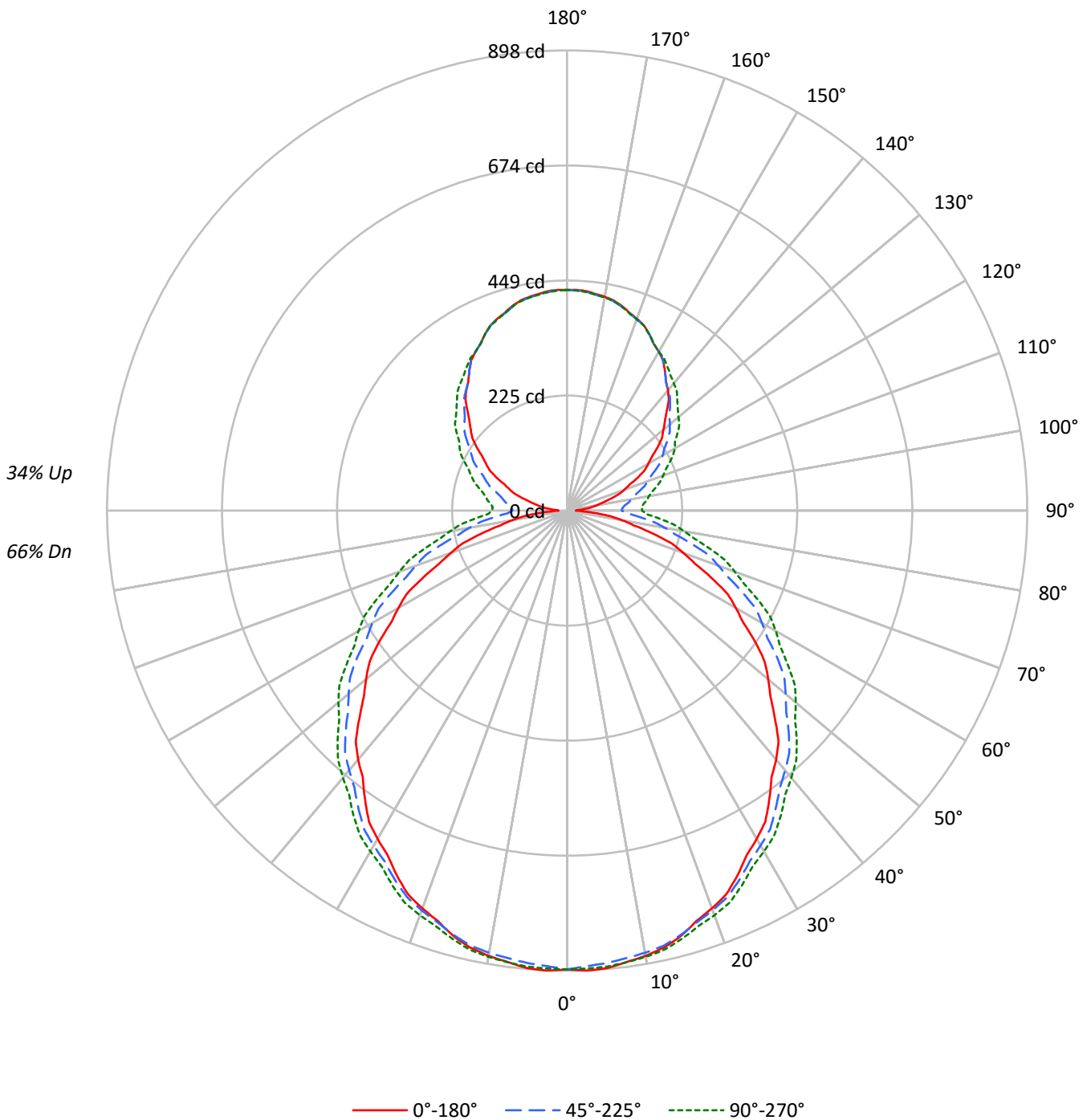
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332584-830

CATALOG NUMBER: S124DIP-S795D365U830-4F0-1E-UDD-D1

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	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	100	95	91	87	94	90	86	82	79	76	73	70	67	65	61	59	58	53
2	91	82	75	70	85	78	71	66	69	64	60	60	57	53	53	50	47	43
3	82	72	64	57	77	68	61	55	60	54	50	53	48	45	46	43	40	36
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34	31
5	69	56	48	41	64	53	45	39	47	41	36	42	37	33	37	33	29	26
6	63	51	42	36	59	48	40	34	43	36	31	38	32	28	33	29	26	23
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	23	20
8	54	41	33	28	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	45	33	26	21	30	24	20	27	22	18	24	20	16	15

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



TEST NUMBER: P332584-830

CATALOG NUMBER: S124DIP-S795D365U830-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	2.0
10°-20°	242.9	5.7
20°-30°	367.3	8.6
30°-40°	444.4	10.5
40°-50°	469.8	11.1
50°-60°	442.2	10.4
60°-70°	366.8	8.6
70°-80°	257.7	6.1
80°-90°	147.0	3.5
90°-100°	114.9	2.7
100°-110°	148.2	3.5
110°-120°	185.8	4.4
120°-130°	212.6	5.0
130°-140°	222.0	5.2
140°-150°	209.9	4.9
150°-160°	174.8	4.1
160°-170°	116.3	2.7
170°-180°	40.7	1.0
0°-30°	695.0	16.4
0°-40°	1139.4	26.8
0°-60°	2051.4	48.3
0°-90°	2822.9	66.5
90°-120°	448.9	10.6
90°-150°	1093.3	25.7
90°-180°	1425.0	33.5
0°-180°	4248.0	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	107	136	146	12
95°	33	70	112	140	150	33
105°	87	108	145	171	180	92
115°	151	162	192	212	220	150
125°	216	216	239	257	263	192
135°	275	277	284	299	304	213
145°	332	333	333	339	342	208
155°	380	380	379	380	379	175
165°	413	412	412	413	412	116
175°	430	428	428	430	428	41
180°	431	431	431	431	431	



TEST NUMBER: P332584-830

CATALOG NUMBER: S124DIP-S795D365U830-4F0-1E-UDD-D1

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°	29.9	39.1	48.4	57.6	66.9	76.4	86.3	96.2	106.0	115.9	122.5
90°	17.1	26.8	36.5	46.2	56.0	65.9	76.1	86.2	96.4	106.6	113.5
92.5°	22.3	31.3	40.2	49.2	58.2	67.7	77.7	87.7	97.6	107.6	114.1
95°	33.0	41.0	49.0	57.1	65.1	73.9	83.6	93.2	102.9	112.5	118.8
97.5°	46.8	53.6	60.4	67.3	74.2	82.5	92.1	101.7	111.4	121.0	127.1
100°	57.7	63.7	69.8	76.0	82.0	89.7	99.1	108.5	117.8	127.1	133.3
102.5°	69.9	75.1	80.3	85.5	90.7	97.8	107.0	116.1	125.2	134.3	140.3
105°	86.6	91.1	95.7	100.2	104.7	111.3	119.8	128.4	136.9	145.4	151.2
107.5°	106.0	109.8	113.6	117.3	121.0	126.9	134.7	142.5	150.3	158.3	163.9
110°	118.6	121.9	125.2	128.4	131.7	137.1	144.9	152.6	160.3	168.1	173.1



TEST NUMBER: P332584-830

CATALOG NUMBER: S124DIP-S795D365U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	131.7	134.4	137.2	140.1	142.8	147.9	155.1	162.5	169.8	177.1	182.0
115°	151.2	153.3	155.2	157.2	159.3	163.7	170.7	177.7	184.6	191.7	196.5
117.5°	170.6	171.9	173.1	174.4	175.7	179.6	186.1	192.7	199.2	205.7	210.1
120°	182.9	183.8	184.8	185.8	186.7	190.3	196.5	202.8	209.1	215.3	219.3
122.5°	196.4	196.7	197.0	197.2	197.5	200.6	206.6	212.6	218.6	224.6	228.8
125°	215.5	215.3	215.1	214.8	214.6	217.3	222.7	228.3	233.8	239.2	243.4
127.5°	233.5	233.5	233.5	233.5	233.5	235.5	239.7	243.9	248.1	252.2	256.1
130°	245.4	245.4	245.4	245.4	245.4	247.2	250.8	254.4	258.0	261.6	265.4
132.5°	258.5	258.4	258.4	258.4	258.3	259.7	262.5	265.2	268.1	270.8	274.5
135°	274.8	275.2	275.7	276.1	276.5	277.6	279.1	280.7	282.2	283.8	287.2
137.5°	293.6	293.5	293.5	293.5	293.5	294.0	294.8	295.7	296.5	297.5	300.5
140°	306.1	306.0	305.9	305.9	305.8	305.9	306.0	306.3	306.5	306.8	309.6
142.5°	316.8	316.9	317.0	317.1	317.2	317.1	316.9	316.7	316.5	316.3	318.9
145°	332.4	332.4	332.5	332.6	332.7	332.8	332.8	332.9	333.0	333.1	334.3
147.5°	348.1	348.3	348.4	348.6	348.6	348.6	348.6	348.6	348.6	348.5	348.6
150°	357.7	357.8	357.9	358.0	358.0	358.1	358.1	358.1	358.1	358.1	358.1
152.5°	366.0	366.1	366.3	366.4	366.5	366.6	366.6	366.7	366.7	366.8	367.0
155°	379.7	379.7	379.7	379.7	379.7	379.7	379.6	379.5	379.5	379.4	379.7
157.5°	391.4	391.2	391.2	391.1	390.9	390.8	390.8	390.8	390.8	390.8	391.0
160°	398.3	398.2	398.2	398.1	398.0	397.9	397.9	397.8	397.8	397.7	397.9
162.5°	404.7	404.5	404.4	404.2	404.0	403.9	403.8	403.7	403.6	403.5	404.0
165°	413.3	413.1	412.9	412.6	412.5	412.3	412.1	412.0	411.8	411.7	412.1
167.5°	419.9	419.6	419.3	419.0	418.7	418.5	418.6	418.6	418.6	418.6	419.1
170°	423.7	423.3	422.9	422.5	422.2	422.1	422.1	422.2	422.3	422.4	422.7
172.5°	426.3	426.0	425.7	425.4	425.1	424.9	424.9	425.0	425.0	425.0	425.5
175°	430.0	429.6	429.2	428.9	428.5	428.3	428.2	428.1	428.1	428.0	428.5
177.5°	431.2	430.9	430.6	430.3	430.0	429.9	429.9	429.9	429.9	429.9	430.3
180°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6



TEST NUMBER: P332584-830

CATALOG NUMBER: S124DIP-S795D365U830-4F0-1E-UDD-D1

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°	129.0	135.6	142.1	146.5	148.5	150.4	152.4	154.4
90°	120.4	127.3	134.2	138.6	140.5	142.5	144.4	146.4
92.5°	120.7	127.2	133.8	138.1	139.9	141.8	143.6	145.5
95°	125.0	131.2	137.5	141.6	143.6	145.6	147.6	149.6
97.5°	133.3	139.3	145.4	149.5	151.4	153.3	155.2	157.1
100°	139.5	145.6	151.8	155.7	157.2	158.8	160.3	161.9
102.5°	146.4	152.5	158.5	162.4	164.2	166.0	167.9	169.7
105°	157.0	162.8	168.6	172.5	174.5	176.5	178.5	180.5
107.5°	169.6	175.3	181.0	184.6	186.2	187.8	189.4	191.0
110°	178.0	182.9	187.9	191.4	193.4	195.5	197.5	199.4



TEST NUMBER: P332584-830

CATALOG NUMBER: S124DIP-S795D365U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	186.9	191.8	196.8	200.1	202.0	203.8	205.7	207.5
115°	201.3	206.1	210.9	214.1	215.7	217.1	218.6	220.1
117.5°	214.4	218.9	223.2	226.2	227.9	229.5	231.1	232.8
120°	223.5	227.5	231.6	234.6	236.6	238.5	240.4	242.3
122.5°	233.0	237.2	241.4	244.2	245.5	246.9	248.2	249.5
125°	247.4	251.5	255.6	258.3	259.4	260.6	261.7	263.0
127.5°	260.0	263.8	267.7	270.3	271.6	273.1	274.5	275.9
130°	269.3	273.1	276.9	279.4	280.5	281.5	282.6	283.6
132.5°	278.2	281.9	285.6	288.0	289.3	290.5	291.7	292.8
135°	290.6	294.1	297.5	299.7	300.9	302.0	303.1	304.2
137.5°	303.6	306.6	309.7	311.8	312.9	314.1	315.3	316.4
140°	312.4	315.2	318.0	320.0	321.0	322.1	323.1	324.1
142.5°	321.4	324.0	326.4	328.2	329.0	330.0	330.9	331.9
145°	335.5	336.9	338.1	339.0	339.8	340.4	341.1	341.8
147.5°	348.6	348.8	348.9	349.3	350.0	350.6	351.2	351.9
150°	358.1	358.1	358.1	358.0	358.0	357.9	357.8	357.7
152.5°	367.2	367.4	367.6	367.5	367.3	367.1	366.9	366.7
155°	379.9	380.2	380.5	380.5	380.2	379.9	379.7	379.4
157.5°	391.2	391.4	391.6	391.6	391.3	391.2	390.9	390.6
160°	398.1	398.3	398.6	398.5	398.1	397.8	397.4	397.0
162.5°	404.4	404.7	405.1	405.1	404.8	404.4	404.1	403.7
165°	412.6	413.0	413.4	413.5	413.2	412.9	412.6	412.4
167.5°	419.5	419.9	420.4	420.4	419.9	419.4	419.0	418.5
170°	423.2	423.7	424.1	424.0	423.6	423.0	422.5	422.0
172.5°	426.0	426.5	427.0	427.0	426.5	425.9	425.5	424.9
175°	429.0	429.5	430.1	430.1	429.5	429.0	428.5	428.0
177.5°	430.6	431.1	431.5	431.5	431.0	430.6	430.1	429.6
180°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6

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