

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: P333537-940

Luminaire Tested: **S125RDIP-S610D810U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333537-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S610D810U940-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4714.5 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

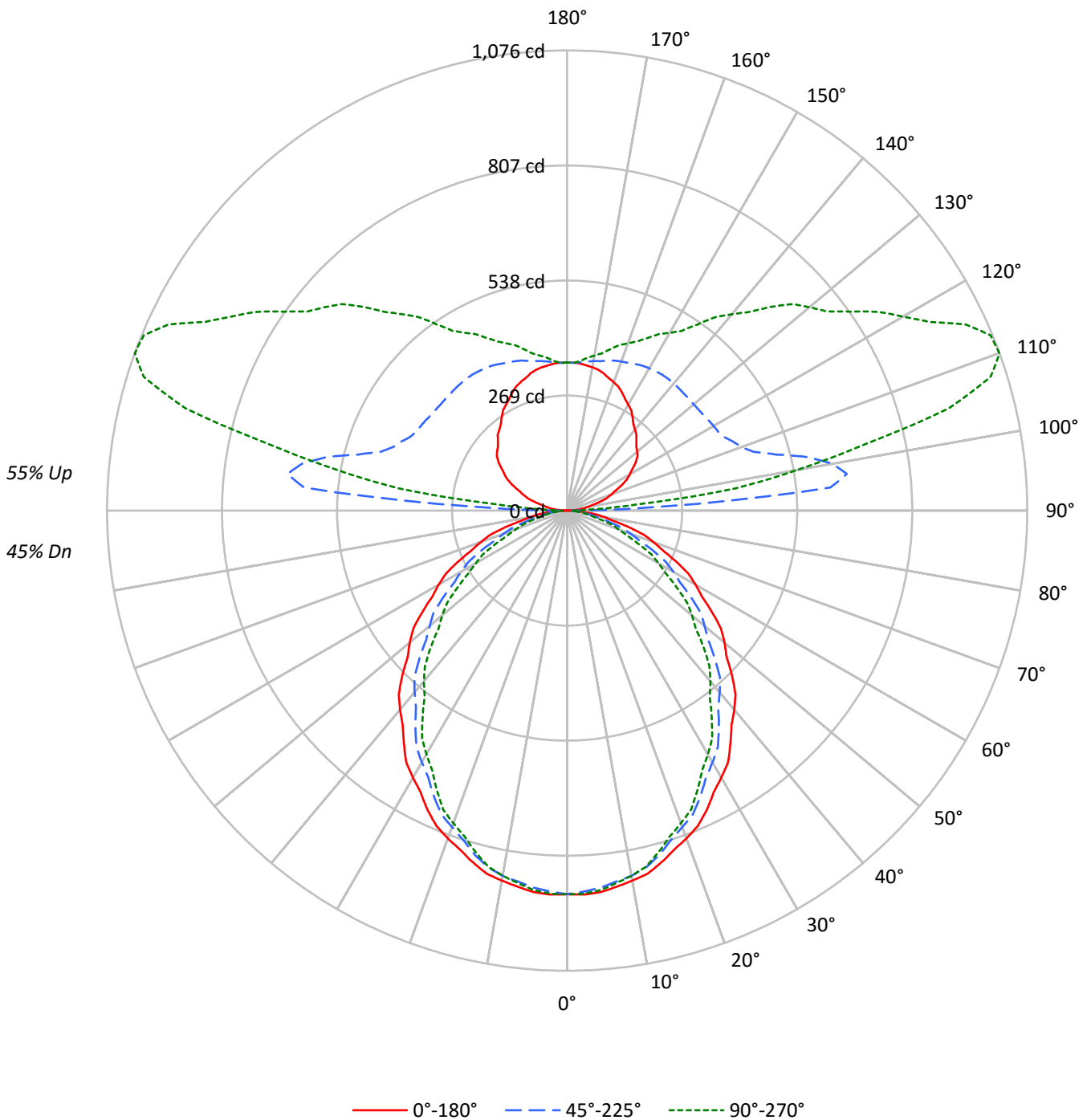
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333537-940

CATALOG NUMBER: S125RDIP-S610D810U940-4F0-1E-UDD-F4

Luminous Intensity Polar Plot





TEST NUMBER: P333537-940

CATALOG NUMBER: S125RDIP-S610D810U940-4F0-1E-UDD-F4

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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	52	52	52	45
1	97	93	89	85	89	85	82	79	71	69	67	58	56	55	46	45	44	38
2	88	81	75	70	81	75	69	65	62	59	55	51	48	46	41	39	37	32
3	81	71	64	59	74	66	60	55	55	51	47	45	42	39	36	34	32	28
4	74	63	56	50	67	58	52	46	49	44	40	40	37	34	32	30	28	24
5	68	56	48	43	62	52	45	40	44	39	34	36	32	29	29	26	24	21
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	27	24	21	18
7	58	46	38	32	53	42	35	30	36	31	27	30	26	23	24	21	19	16
8	54	42	34	29	49	39	32	27	33	27	24	27	23	20	22	19	17	15
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	21	18	15	13
10	47	35	28	23	43	32	26	22	28	23	19	23	19	17	19	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5794	5794	5794
5°	5806	5741	5776
10°	5762	5687	5687
15°	5695	5572	5526
20°	5606	5411	5346
25°	5504	5253	5137
30°	5376	5068	4906
35°	5245	4877	4647
40°	5123	4678	4392
45°	4975	4455	4116
50°	4827	4214	3826
55°	4654	3983	3518
60°	4481	3702	3185
65°	4276	3376	2806
70°	4043	2968	2417
75°	3721	2500	2011
80°	3277	1967	1689
85°	2764	1608	1504



TEST NUMBER: P333537-940

CATALOG NUMBER: S125RDIP-S610D810U940-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	1.8
10°-20°	235.7	5.0
20°-30°	341.8	7.3
30°-40°	389.6	8.3
40°-50°	379.7	8.1
50°-60°	319.6	6.8
60°-70°	224.1	4.8
70°-80°	115.2	2.4
80°-90°	31.0	0.7
90°-100°	250.7	5.3
100°-110°	538.9	11.4
110°-120°	505.7	10.7
120°-130°	409.8	8.7
130°-140°	328.9	7.0
140°-150°	248.2	5.3
150°-160°	174.7	3.7
160°-170°	103.0	2.2
170°-180°	33.5	0.7
0°-30°	661.9	14.0
0°-40°	1051.5	22.3
0°-60°	1750.9	37.1
0°-90°	2121.1	45.0
90°-120°	1295.2	27.5
90°-150°	2282.2	48.4
90°-180°	2593.0	55.0
0°-180°	4714.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	896	893	886	892	891	85
15°	852	847	833	832	826	240
25°	772	761	737	728	721	355
35°	665	648	619	600	589	416
45°	545	524	488	462	451	420
55°	413	391	354	324	312	370
65°	280	256	221	195	184	277
75°	149	128	100	86	81	158
85°	37	26	22	21	20	42
90°	1	6	11	15	16	3
95°	23	68	618	280	164	24
105°	79	110	506	995	924	83
115°	141	170	406	875	1029	139
125°	195	229	389	696	811	173
135°	229	275	386	583	674	178
145°	266	305	388	483	531	167
155°	304	327	378	427	446	140
165°	332	341	363	385	390	93
175°	345	345	348	352	351	33
180°	346	346	346	346	346	



TEST NUMBER: P333537-940

CATALOG NUMBER: S125RDIP-S610D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1
2.5°	898.7	898.3	898.0	897.6	897.2	896.4	895.2	894.0	892.8	891.6	892.8
5°	895.6	895.1	894.5	893.9	893.2	892.2	890.5	888.9	887.2	885.5	887.0
7.5°	886.9	886.3	885.7	885.1	884.6	883.3	881.3	879.3	877.4	875.3	876.4
10°	878.7	878.2	877.8	877.4	876.9	875.7	873.5	871.5	869.3	867.2	867.6
12.5°	869.5	869.0	868.3	867.8	867.2	865.5	862.7	859.9	857.0	854.2	854.5
15°	851.7	850.7	849.8	848.9	848.0	846.0	842.8	839.6	836.5	833.3	833.2
17.5°	831.4	830.1	828.7	827.3	825.9	823.2	819.2	815.3	811.3	807.4	806.6
20°	815.7	814.2	812.7	811.2	809.7	806.6	801.7	796.9	792.1	787.3	786.5
22.5°	798.3	796.8	795.4	793.9	792.4	789.1	784.0	779.0	773.9	768.8	767.4
25°	772.4	770.1	767.9	765.6	763.3	759.4	753.9	748.2	742.7	737.1	735.2
27.5°	742.5	739.9	737.1	734.3	731.6	727.3	721.3	715.3	709.4	703.4	700.6
30°	720.9	718.0	715.2	712.3	709.4	704.8	698.5	692.2	685.9	679.6	676.1
32.5°	699.7	696.4	693.0	689.7	686.3	681.4	675.0	668.6	662.1	655.7	651.8
35°	665.3	661.7	658.1	654.5	650.9	645.7	638.9	632.1	625.4	618.6	614.2
37.5°	631.6	627.1	622.8	618.4	614.0	608.3	601.3	594.3	587.4	580.3	575.2
40°	607.7	603.2	598.7	594.1	589.7	583.8	576.6	569.4	562.1	554.9	549.2
42.5°	582.8	578.2	573.5	568.9	564.3	558.2	550.7	543.2	535.8	528.3	522.8
45°	544.7	540.4	536.0	531.6	527.3	520.9	512.6	504.4	496.1	487.8	481.8
47.5°	505.3	500.7	496.1	491.5	486.9	480.4	472.1	463.7	455.4	447.0	440.9
50°	480.4	475.4	470.4	465.5	460.5	453.7	445.1	436.6	427.9	419.4	413.0
52.5°	453.3	448.2	443.1	438.0	432.9	426.3	418.2	410.1	402.0	393.9	387.1
55°	413.3	408.5	403.7	398.9	394.0	387.4	379.0	370.5	362.1	353.7	346.9
57.5°	372.9	367.7	362.6	357.5	352.3	345.6	337.5	329.4	321.3	313.2	306.5
60°	346.9	341.6	336.4	331.1	325.8	319.1	310.9	302.8	294.7	286.6	280.0
62.5°	319.2	314.2	309.2	304.2	299.2	292.5	284.3	276.0	267.8	259.5	253.3
65°	279.8	274.7	269.6	264.5	259.3	252.8	244.8	236.8	228.8	220.9	214.8
67.5°	240.7	235.5	230.4	225.3	220.2	213.8	206.2	198.5	190.8	183.2	177.7
70°	214.1	209.0	203.8	198.8	193.6	187.3	179.8	172.3	164.7	157.2	152.5
72.5°	188.1	183.1	178.1	173.1	168.1	162.0	155.0	147.9	140.9	133.8	129.6
75°	149.1	144.5	140.0	135.5	131.0	125.6	119.2	112.9	106.6	100.2	96.9
77.5°	110.3	106.6	103.1	99.4	95.9	91.5	86.4	81.4	76.3	71.2	68.9
80°	88.1	84.4	80.9	77.2	73.7	69.7	65.5	61.3	57.1	52.9	51.5
82.5°	66.4	63.1	59.9	56.6	53.4	50.3	47.4	44.5	41.6	38.8	38.2
85°	37.3	34.5	31.8	29.2	26.4	24.7	23.9	23.2	22.5	21.7	21.5
87.5°	12.6	11.9	11.3	10.8	10.2	10.0	10.0	10.2	10.2	10.3	10.5
90°	0.7	1.4	2.8	4.2	5.6	7.0	7.7	9.1	9.7	11.1	11.9
92.5°	8.5	10.3	16.1	24.8	36.8	57.2	95.2	159.1	228.4	224.8	182.0
95°	23.0	23.7	29.2	36.9	52.3	83.6	158.3	311.7	504.1	617.8	604.5
97.5°	38.2	39.1	43.0	50.6	64.4	87.0	136.3	248.8	450.1	659.7	764.8
100°	48.8	50.2	53.0	60.6	73.9	94.8	135.3	225.9	401.6	629.6	803.9
102.5°	60.5	61.3	63.6	71.8	83.9	104.3	140.3	216.4	364.8	576.6	780.5
105°	78.8	78.8	82.3	89.3	100.4	119.9	150.6	212.7	329.1	505.5	705.6
107.5°	96.7	98.0	101.4	107.1	118.7	136.3	165.9	219.1	314.1	456.6	629.2
110°	109.5	110.8	113.6	119.9	130.4	148.5	177.1	225.2	309.6	433.6	585.7



TEST NUMBER: P333537-940

CATALOG NUMBER: S125RDIP-S610D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	122.3	123.7	125.9	132.2	142.7	160.2	187.7	233.0	309.6	420.3	553.3
115°	140.8	142.2	144.4	150.6	161.0	178.5	204.3	244.7	311.7	405.8	518.0
117.5°	157.6	159.7	161.9	168.2	180.0	196.9	221.3	258.2	316.3	398.7	497.0
120°	168.7	170.9	173.6	179.9	191.7	209.2	233.5	267.1	320.7	395.3	485.3
122.5°	180.5	182.0	184.2	190.5	203.5	220.9	245.3	277.1	324.6	392.5	475.2
125°	195.2	196.6	200.1	206.3	219.6	237.7	260.7	290.7	331.2	389.1	461.5
127.5°	206.8	208.9	213.4	221.3	235.4	253.5	275.7	303.3	338.6	387.4	449.0
130°	214.0	216.2	221.7	230.8	245.4	263.6	285.2	311.7	343.0	386.3	440.7
132.5°	219.6	222.3	229.0	239.2	254.3	272.5	294.1	318.9	348.0	386.3	434.0
135°	228.7	231.5	239.9	251.0	265.6	284.5	306.1	329.1	354.9	386.3	426.0
137.5°	240.1	242.2	250.0	261.2	275.5	294.9	314.6	336.6	361.1	387.1	418.9
140°	246.8	248.9	257.3	268.4	281.7	300.5	320.7	341.6	363.9	387.6	415.5
142.5°	254.6	256.2	263.9	275.1	287.8	305.5	324.6	344.5	365.6	388.3	412.8
145°	266.4	267.7	274.7	284.5	297.0	313.1	331.2	348.6	367.5	387.6	408.6
147.5°	278.6	279.5	285.4	294.5	305.4	319.5	335.4	351.2	368.1	385.8	404.2
150°	285.9	287.2	292.1	301.2	310.9	322.8	338.1	352.8	368.1	384.1	400.9
152.5°	293.6	294.5	298.8	306.7	316.0	326.7	340.9	353.9	367.6	381.9	397.0
155°	304.0	304.0	308.2	315.1	322.1	331.9	343.8	354.9	366.0	377.9	390.5
157.5°	313.2	313.1	316.4	322.4	328.5	335.9	346.1	355.6	364.3	373.7	384.3
160°	319.3	318.6	321.5	326.3	331.9	338.1	347.2	355.6	362.6	371.0	379.3
162.5°	324.3	323.7	326.5	330.7	335.2	340.4	348.3	355.0	360.9	367.6	374.8
165°	331.9	330.5	332.6	336.1	338.9	343.0	348.6	354.2	358.4	362.6	368.1
167.5°	336.9	336.2	337.4	339.4	341.3	344.0	348.6	352.5	354.5	357.7	361.6
170°	340.3	339.6	340.3	341.6	343.0	345.1	348.6	351.4	352.8	354.9	357.7
172.5°	342.5	341.3	341.9	343.3	344.1	345.1	348.0	350.3	350.5	351.5	353.7
175°	345.1	343.8	344.5	345.1	345.1	345.1	347.2	348.6	347.9	347.9	348.6
177.5°	346.3	345.3	345.3	345.8	345.3	345.3	346.3	347.0	345.8	345.8	346.3
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8



TEST NUMBER: P333537-940

CATALOG NUMBER: S125RDIP-S610D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	897.1	897.1	897.1	897.1	897.1	897.1	897.1	897.1
2.5°	894.0	895.2	896.4	897.0	896.9	896.7	896.6	896.5
5°	888.5	890.0	891.5	892.2	891.8	891.5	891.3	890.9
7.5°	877.4	878.5	879.6	879.9	879.6	879.2	879.0	878.6
10°	868.1	868.5	869.1	869.1	868.5	868.1	867.6	867.2
12.5°	854.9	855.2	855.5	855.3	854.6	854.0	853.3	852.6
15°	833.0	832.9	832.8	832.0	830.6	829.3	828.0	826.5
17.5°	805.8	805.0	804.3	803.3	802.3	801.1	800.0	798.9
20°	785.8	785.0	784.3	783.2	781.9	780.5	779.2	777.8
22.5°	765.9	764.4	762.9	761.6	760.5	759.4	758.3	757.2
25°	733.3	731.3	729.3	727.5	725.9	724.2	722.6	720.9
27.5°	697.9	695.2	692.4	690.3	688.7	687.1	685.5	683.9
30°	672.6	669.1	665.7	663.3	661.9	660.6	659.2	657.9
32.5°	648.0	644.3	640.4	637.7	635.9	634.2	632.5	630.8
35°	609.8	605.5	601.1	597.9	595.8	593.6	591.6	589.4
37.5°	569.9	564.6	559.4	555.7	553.7	551.7	549.7	547.6
40°	543.4	537.7	532.0	528.2	526.5	524.6	522.8	521.0
42.5°	517.4	511.8	506.4	502.3	499.7	497.0	494.4	491.8
45°	475.7	469.8	463.7	459.6	457.4	455.0	452.8	450.6
47.5°	434.6	428.4	422.2	417.9	415.4	412.9	410.4	407.9
50°	406.7	400.4	394.0	389.8	387.5	385.3	383.0	380.8
52.5°	380.3	373.4	366.7	362.1	359.9	357.7	355.3	353.1
55°	340.1	333.3	326.5	322.0	319.6	317.2	314.8	312.4
57.5°	299.9	293.3	286.7	282.2	280.1	277.9	275.9	273.8
60°	273.3	266.7	260.1	255.7	253.4	251.1	248.9	246.6
62.5°	247.2	241.0	234.9	230.7	228.5	226.2	223.9	221.7
65°	208.8	202.8	196.8	192.6	190.4	188.2	185.8	183.6
67.5°	172.2	166.7	161.1	157.5	155.7	153.9	152.0	150.3
70°	147.8	143.2	138.5	135.3	133.5	131.7	129.8	128.0
72.5°	125.3	120.9	116.6	113.9	112.7	111.5	110.3	109.1
75°	93.6	90.3	87.0	84.8	83.8	82.8	81.7	80.6
77.5°	66.6	64.3	62.0	60.5	59.7	58.9	58.1	57.3
80°	50.1	48.8	47.4	46.6	46.3	46.0	45.7	45.4
82.5°	37.5	36.8	36.2	35.8	35.7	35.5	35.3	35.1
85°	21.4	21.2	21.0	21.0	20.8	20.6	20.5	20.3
87.5°	10.6	10.8	10.9	11.1	11.1	10.9	10.9	10.8
90°	12.6	13.3	13.9	15.3	15.3	15.3	16.1	16.1
92.5°	123.6	89.7	67.5	57.2	48.2	46.5	45.6	44.5
95°	501.3	395.3	309.6	251.0	201.5	180.6	175.0	163.8
97.5°	746.6	672.3	588.7	507.3	464.2	425.2	404.9	396.0
100°	857.6	823.4	751.6	679.1	631.0	580.8	555.0	543.9
102.5°	894.9	916.1	881.5	832.5	781.0	745.3	717.3	708.9
105°	872.9	968.5	999.2	991.5	969.1	946.1	932.2	923.8
107.5°	794.2	921.8	1000.5	1036.9	1048.2	1048.0	1043.5	1037.9
110°	736.3	868.7	967.1	1026.3	1057.7	1070.9	1075.8	1075.8



TEST NUMBER: P333537-940

CATALOG NUMBER: S125RDIP-S610D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	690.5	816.3	915.7	985.6	1031.4	1054.2	1066.3	1071.4
115°	633.1	741.2	836.7	912.7	967.1	1000.5	1020.0	1029.1
117.5°	596.0	689.1	771.4	841.2	895.5	930.1	949.5	955.0
120°	575.9	659.6	736.3	797.6	849.2	882.7	901.5	907.0
122.5°	560.9	638.4	706.7	764.2	810.2	840.9	859.7	864.7
125°	539.0	610.1	670.7	720.9	760.0	788.5	803.9	810.8
127.5°	516.7	583.0	639.6	686.6	722.0	747.3	761.8	764.8
130°	502.7	564.1	618.4	663.8	698.7	721.7	735.6	739.8
132.5°	488.7	546.2	595.6	639.2	674.0	697.1	709.9	714.6
135°	470.6	518.7	563.4	603.1	633.7	656.7	669.3	673.5
137.5°	455.3	494.2	531.3	565.0	592.5	613.4	625.0	629.6
140°	446.9	479.7	511.8	541.0	566.9	585.0	595.4	598.9
142.5°	439.7	467.4	495.0	520.4	542.3	557.7	567.6	570.4
145°	430.2	451.8	473.4	492.2	509.0	520.8	528.5	531.3
147.5°	421.2	438.8	455.4	469.7	482.9	492.4	496.9	498.1
150°	416.3	431.6	444.8	457.4	467.9	476.2	479.0	479.7
152.5°	410.6	424.4	436.5	446.2	455.0	461.7	464.5	465.2
155°	402.3	413.5	423.2	430.9	437.8	442.7	444.8	445.5
157.5°	394.0	403.1	410.6	416.7	422.1	426.1	428.1	427.9
160°	388.3	395.3	402.3	407.2	412.1	415.5	417.0	416.3
162.5°	382.2	388.6	394.5	398.8	402.6	405.5	405.8	405.6
165°	373.7	378.6	382.8	386.3	389.1	390.5	390.5	390.5
167.5°	365.6	368.8	372.0	374.5	375.9	377.2	376.7	376.5
170°	361.1	363.3	365.3	366.8	368.1	368.8	368.8	368.1
172.5°	356.1	358.2	359.8	360.6	360.9	362.1	361.1	360.3
175°	350.7	350.7	352.1	352.1	352.1	352.8	351.4	350.7
177.5°	347.0	347.5	347.5	347.5	347.0	347.5	345.8	345.8
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8

(END OF REPORT)