

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P832133

Luminaire Tested: S123RDIP-S340D585U930-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832133
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-17)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDIP-S340D585U930-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

Summary

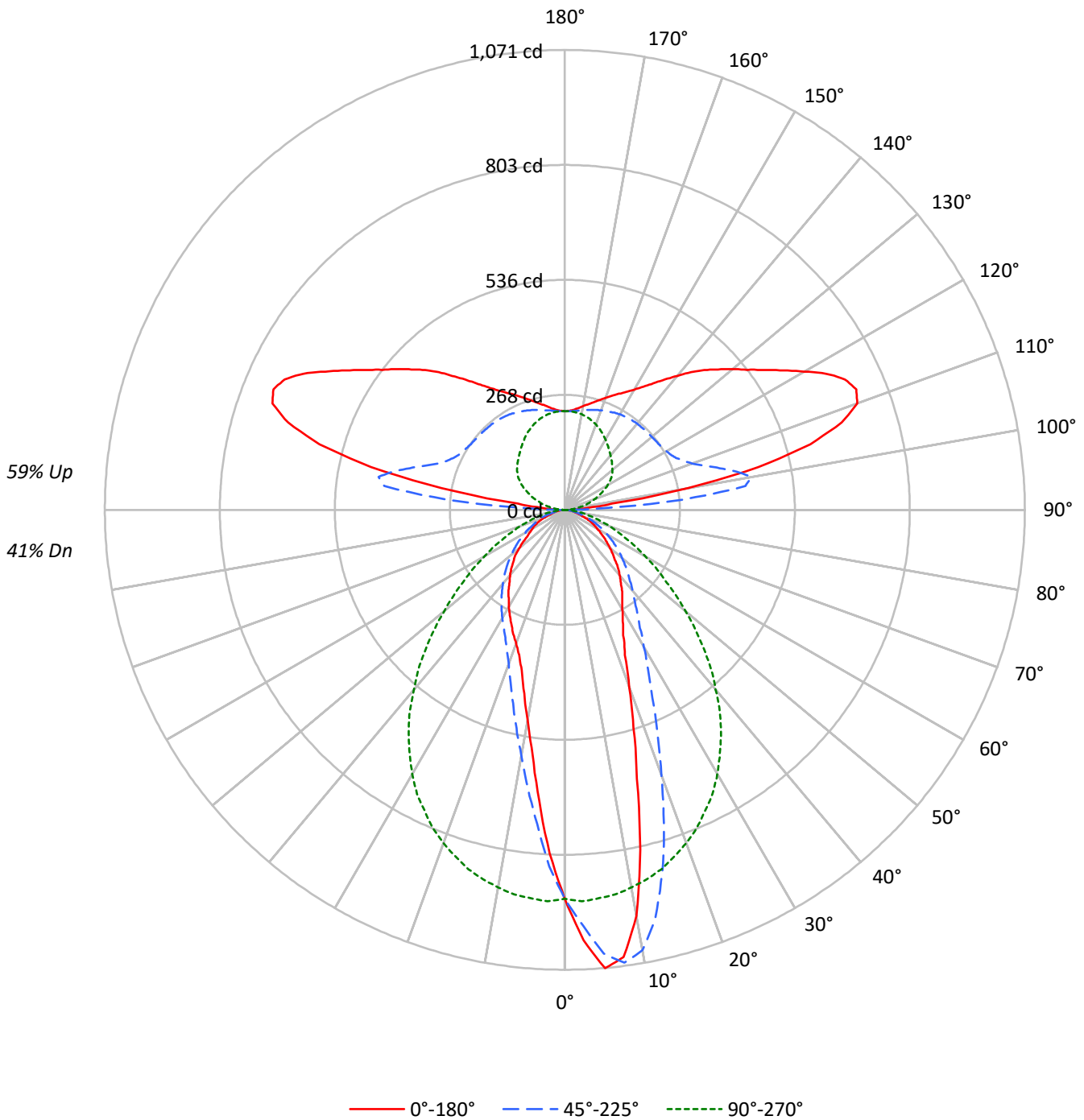
Lumens per Lamp: N/A
Luminaire Lumens: 2930.1 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 27.6
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: 24 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	50	30	10	0	
RCR																						
0	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41				
1	96	92	89	86	88	84	81	79	70	67	66	56	55	53	43	42	42	36				
2	88	81	76	71	80	75	70	66	62	58	55	50	48	46	39	37	36	31				
3	81	72	65	60	74	66	60	56	55	51	47	45	42	39	35	33	32	27				
4	75	64	57	51	68	59	53	48	49	45	41	40	37	34	32	30	28	24				
5	69	58	50	45	63	53	47	42	45	40	36	37	33	30	29	27	25	22				
6	64	52	45	39	58	48	41	37	41	36	32	34	30	27	27	24	22	19				
7	59	47	40	35	54	44	37	33	37	32	28	31	27	24	25	22	20	18				
8	55	43	36	31	50	40	34	29	34	29	26	28	25	22	23	20	18	16				
9	51	40	33	28	47	37	31	26	31	27	23	26	23	20	21	19	17	15				
10	48	37	30	25	44	34	28	24	29	24	21	24	21	18	20	18	16	14				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9749	9749	9749	9749	9749
5°	11577	11207	9811	7931	7363
10°	10488	11384	9762	6355	5451
15°	7221	9760	9658	5194	4313
20°	5024	7514	9465	4379	3790
25°	3828	5727	9183	3892	3493
30°	3332	4579	8830	3614	3235
35°	3059	3862	8330	3380	3001
40°	2792	3450	7676	3149	2786
45°	2521	3154	6970	2930	2573
50°	2289	2910	6137	2718	2308
55°	2070	2672	5339	2509	1980
60°	1856	2430	4637	2278	1871
65°	1712	2157	3991	2048	1768
70°	1391	1863	3484	1854	1438
75°	1219	1485	2949	1535	1268
80°	1103	1252	2417	1289	1196
85°	1013	1099	1840	1173	1099

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 7354 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	2.8
10°-20°	191.0	6.5
20°-30°	219.2	7.5
30°-40°	216.0	7.4
40°-50°	190.5	6.5
50°-60°	146.6	5.0
60°-70°	96.4	3.3
70°-80°	46.8	1.6
80°-90°	13.1	0.4
90°-100°	124.7	4.3
100°-110°	365.0	12.5
110°-120°	356.4	12.2
120°-130°	283.8	9.7
130°-140°	223.9	7.6
140°-150°	167.1	5.7
150°-160°	116.5	4.0
160°-170°	68.4	2.3
170°-180°	22.3	0.8
0°-30°	492.8	16.8
0°-40°	708.8	24.2
0°-60°	1045.9	35.7
0°-90°	1202.1	41.0
90°-120°	846.0	28.9
90°-150°	1520.8	51.9
90°-180°	1728.0	59.0
0°-180°	2930.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	906	906	906	906	906	
5°	1071	1037	908	734	681	98
15°	648	876	867	466	387	183
25°	322	482	773	328	294	152
35°	233	294	634	257	228	145
45°	166	207	458	192	169	129
55°	110	142	284	134	106	99
65°	67	85	157	80	69	66
75°	29	36	71	37	30	32
85°	8	9	15	10	9	9
90°	14	12	1	12	14	8
95°	54	276	16	276	54	88
105°	592	374	54	374	592	590
115°	719	286	95	286	719	702
125°	567	267	132	267	567	513
135°	460	263	155	263	460	357
145°	360	260	177	260	360	228
155°	298	252	201	252	298	139
165°	260	241	220	241	260	74
175°	234	231	229	231	234	23
180°	230	230	230	230	230	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7
2.5°	1003.8	1000.6	997.5	996.5	995.6	992.6	989.7	983.0	976.3	969.4	962.6
5°	1071.4	1071.7	1072.1	1071.2	1070.2	1066.3	1062.4	1054.3	1046.1	1037.2	1028.3
7.5°	1050.6	1056.5	1062.4	1063.6	1064.7	1067.6	1070.6	1068.8	1066.9	1063.6	1060.2
10°	959.6	959.2	958.8	965.5	972.2	992.1	1011.9	1022.2	1032.4	1041.5	1050.6
12.5°	811.0	811.6	812.2	834.1	856.0	874.7	893.5	919.5	945.5	973.5	1001.5
15°	648.0	657.1	666.2	685.7	705.2	733.4	761.7	796.6	831.5	875.8	920.2
17.5°	532.2	536.1	540.0	558.7	577.5	604.2	630.9	670.5	710.0	767.2	824.4
20°	438.6	442.1	445.6	459.2	472.7	498.4	524.0	561.7	599.4	656.0	712.6
22.5°	366.2	373.0	379.9	389.0	398.1	416.7	435.2	473.7	512.1	563.7	615.3
25°	322.3	325.5	328.7	336.4	344.2	362.1	379.9	405.3	430.8	482.2	533.6
27.5°	292.6	293.6	294.5	300.2	306.0	317.5	329.0	352.6	376.2	418.5	460.9
30°	268.1	269.8	271.5	275.9	280.4	288.7	297.1	313.8	330.5	368.4	406.3
32.5°	249.2	250.1	251.0	254.8	258.5	264.6	270.7	283.9	297.1	326.1	355.0
35°	232.8	233.0	233.2	236.0	238.8	244.7	250.7	261.6	272.6	293.9	315.3
37.5°	214.3	215.6	216.9	218.9	221.0	226.2	231.4	240.3	249.2	266.8	284.5
40°	198.7	199.8	200.9	203.3	205.7	209.8	213.9	222.1	230.2	245.5	260.7
42.5°	183.1	183.8	184.6	187.0	189.4	194.4	199.4	205.9	212.4	225.0	237.7
45°	165.6	167.5	169.3	171.9	174.5	178.8	183.1	189.8	196.4	207.2	218.0
47.5°	151.1	152.1	153.0	155.2	157.5	162.7	167.9	173.8	179.7	189.8	199.8
50°	136.7	137.0	137.4	139.4	141.5	146.1	150.8	157.6	164.5	173.8	183.1
52.5°	122.9	123.8	124.8	126.8	128.9	132.0	135.2	142.2	149.3	158.4	167.5
55°	110.3	110.8	111.4	112.9	114.4	118.1	121.8	127.9	134.1	142.4	150.8
57.5°	98.4	99.2	99.9	101.0	102.1	105.5	108.8	114.2	119.6	127.9	136.3
60°	86.2	87.1	88.0	89.3	90.6	93.2	95.8	100.6	105.5	112.9	120.3
62.5°	77.2	77.4	77.6	78.7	79.8	81.7	83.6	87.5	91.4	98.8	106.2
65°	67.2	67.8	68.3	68.9	69.4	70.9	72.4	75.8	79.1	84.7	90.2
67.5°	56.8	57.4	57.9	58.9	59.8	61.1	62.4	64.6	66.8	72.0	77.2
70°	44.2	44.2	44.2	45.7	47.2	49.4	51.6	53.3	55.0	59.2	63.5
72.5°	36.0	36.2	36.4	36.6	36.8	38.1	39.4	42.1	44.9	47.5	50.1
75°	29.3	29.5	29.7	29.9	30.1	30.5	30.8	31.8	32.7	35.7	38.6
77.5°	23.4	23.6	23.8	24.0	24.1	24.5	24.9	25.3	25.6	26.7	27.9
80°	17.8	18.0	18.2	18.4	18.6	18.8	18.9	19.3	19.7	20.2	20.8
82.5°	13.0	13.0	13.0	13.0	13.0	13.4	13.7	13.7	13.7	14.1	14.5
85°	8.2	8.2	8.2	8.4	8.5	8.5	8.5	8.7	8.9	8.9	8.9
87.5°	3.7	3.5	3.3	3.5	3.7	3.7	3.7	3.9	4.1	4.1	4.1
90°	13.5	14.0	13.5	13.0	13.5	12.6	12.1	11.6	11.2	11.6	10.2
92.5°	24.6	25.6	25.1	27.0	27.9	31.2	35.8	46.0	64.6	86.5	95.8
95°	53.9	55.8	59.1	63.2	72.1	88.8	113.5	167.4	223.7	275.8	245.5
97.5°	110.7	115.8	127.0	144.6	175.8	228.8	290.2	384.6	438.5	424.1	316.7
100°	291.6	291.1	309.2	343.2	390.2	456.2	510.6	548.3	532.0	440.4	297.6
102.5°	461.8	475.3	489.7	514.8	548.7	584.5	610.6	602.7	536.6	410.2	269.7
105°	591.5	593.8	608.7	626.4	647.8	659.9	651.0	604.5	507.3	373.9	247.9
107.5°	676.1	681.3	687.3	695.7	698.5	685.9	649.6	576.6	465.5	341.8	232.0
110°	724.5	725.4	726.4	722.6	709.6	677.1	618.5	532.9	426.4	315.3	223.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	734.3	733.8	729.2	715.7	689.2	645.0	577.6	489.7	392.5	297.6	219.0
115°	719.4	717.1	707.8	687.3	652.4	601.7	533.4	452.5	366.4	286.0	218.6
117.5°	686.8	683.6	669.6	646.8	610.6	558.0	495.3	423.6	349.2	278.1	219.0
120°	644.1	641.3	630.1	604.1	567.3	520.4	464.6	401.8	336.2	273.0	220.9
122.5°	604.1	600.3	587.8	565.0	533.4	490.6	439.9	384.6	325.5	269.7	224.1
125°	567.3	564.1	552.4	532.0	502.2	465.0	420.4	369.7	316.7	266.9	227.4
127.5°	535.7	532.9	522.2	504.6	477.6	443.2	402.2	356.2	308.3	265.5	231.1
130°	509.7	505.9	496.2	479.4	454.8	423.2	385.5	343.7	301.8	264.1	234.8
132.5°	484.1	481.8	473.4	456.7	433.9	404.1	369.7	332.0	295.8	263.7	237.6
135°	459.9	456.7	448.3	434.3	411.5	385.0	354.8	321.8	290.6	263.2	240.4
137.5°	434.3	431.5	424.6	410.2	390.6	366.9	339.9	312.0	286.0	262.3	242.3
140°	407.4	407.8	400.4	387.4	369.7	349.7	327.4	303.7	281.8	261.8	244.1
142.5°	382.3	382.7	376.2	365.0	350.6	333.9	315.3	295.8	278.1	260.9	245.5
145°	359.5	358.5	354.8	345.0	333.4	319.9	305.1	289.7	274.8	259.9	246.0
147.5°	339.9	339.5	335.7	328.8	319.5	309.7	297.2	284.6	271.6	258.6	246.0
150°	323.2	323.2	320.4	315.3	308.3	299.5	289.7	279.0	268.3	256.7	246.0
152.5°	309.2	309.2	307.8	303.2	298.1	291.1	282.7	273.9	264.6	254.4	244.6
155°	298.1	297.6	296.7	293.0	288.8	283.2	276.2	268.8	260.9	251.6	243.7
157.5°	287.4	287.4	286.5	283.7	279.9	275.3	269.7	263.2	256.7	249.3	242.3
160°	277.2	277.6	277.6	274.8	271.6	268.3	263.7	258.6	252.5	246.5	241.3
162.5°	267.9	268.3	268.3	266.0	264.1	261.3	257.2	253.0	248.3	243.7	239.5
165°	259.9	259.9	260.4	258.6	256.7	254.4	251.1	248.3	244.6	240.9	237.6
167.5°	252.0	252.0	252.5	251.1	250.2	248.3	246.5	244.1	240.9	238.1	235.8
170°	245.1	245.1	245.5	244.6	244.1	243.2	241.3	240.0	237.6	235.3	233.9
172.5°	238.6	239.0	240.0	239.0	239.0	238.6	237.2	236.2	234.4	233.0	232.5
175°	233.9	234.4	234.8	234.4	234.4	234.4	233.4	233.0	232.0	231.1	231.1
177.5°	230.7	230.7	231.6	231.1	231.6	231.6	231.1	230.7	230.2	229.7	230.2
180°	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7
2.5°	961.6	960.7	951.8	942.9	934.1	925.4	918.9	912.4	901.5	890.5	883.6
5°	1021.2	1014.2	1000.1	986.0	964.8	943.6	925.8	908.0	885.3	862.7	843.7
7.5°	1054.5	1048.7	1031.6	1014.5	986.5	958.5	930.6	902.8	869.3	835.9	807.3
10°	1055.4	1060.2	1046.1	1032.0	1000.4	968.9	931.0	893.1	848.2	803.2	766.3
12.5°	1022.3	1043.1	1040.2	1037.2	1005.1	973.0	926.9	880.9	825.7	770.6	724.3
15°	960.5	1000.8	1012.7	1024.6	998.0	971.5	919.1	866.7	801.9	737.1	684.0
17.5°	880.9	937.3	968.7	1000.1	980.8	961.4	904.1	846.7	773.7	700.7	643.0
20°	786.5	860.4	909.6	958.8	951.8	944.7	885.5	826.3	747.5	668.8	606.2
22.5°	693.3	771.3	839.3	907.2	914.5	921.7	861.9	802.1	716.0	629.8	566.1
25°	612.9	692.2	773.2	854.1	870.5	886.8	830.0	773.2	683.9	594.5	531.2
27.5°	536.2	611.6	700.7	789.9	819.6	849.3	797.3	745.3	652.3	559.3	496.1
30°	473.7	541.1	632.0	723.0	764.4	805.8	758.1	710.4	618.1	525.8	464.0
32.5°	415.4	475.7	567.1	658.4	706.5	754.6	713.4	672.2	583.4	494.6	433.6
35°	369.3	423.3	508.6	593.8	647.6	701.5	667.7	633.9	547.2	460.5	402.7
37.5°	329.8	375.1	455.1	535.1	592.3	649.5	621.3	593.1	511.5	430.0	375.4
40°	297.1	333.5	407.9	482.4	538.5	594.5	570.4	546.3	473.3	400.3	349.3
42.5°	269.0	300.4	367.3	434.1	485.5	537.0	521.0	505.0	438.9	372.8	325.5
45°	244.4	270.7	329.6	388.4	435.8	483.1	470.5	457.9	400.9	343.9	300.4
47.5°	222.4	245.1	297.6	350.2	392.7	435.2	423.5	411.8	364.7	317.5	278.0
50°	202.4	221.7	265.5	309.3	347.6	385.8	376.2	366.5	327.5	288.5	254.4
52.5°	183.4	199.4	238.8	278.1	309.0	339.8	332.4	324.9	294.9	264.8	233.8
55°	165.4	180.1	213.3	246.6	272.9	299.3	291.9	284.5	261.1	237.7	210.4
57.5°	149.1	161.9	188.8	215.8	236.7	257.7	254.2	250.7	231.2	211.7	189.2
60°	131.8	143.3	166.6	189.8	206.7	223.6	219.5	215.4	201.5	187.5	168.2
62.5°	116.4	126.6	145.2	163.8	177.5	191.2	188.3	185.3	174.7	164.1	148.2
65°	100.3	110.3	125.3	140.4	151.1	161.9	159.3	156.7	148.7	140.7	127.9
67.5°	85.6	94.0	107.0	119.9	127.2	134.4	132.9	131.5	125.3	119.2	109.2
70°	70.7	78.0	88.8	99.5	104.5	109.6	110.1	110.7	105.1	99.5	92.1
72.5°	55.9	61.6	71.7	81.7	85.6	89.5	89.3	89.1	85.8	82.4	75.8
75°	42.9	47.2	55.0	62.8	66.1	69.4	70.2	70.9	67.8	64.6	60.9
77.5°	30.8	33.8	39.7	45.7	49.4	53.1	53.5	53.8	52.4	50.9	47.3
80°	21.7	22.7	26.4	30.1	34.0	37.9	38.4	39.0	37.5	36.0	33.8
82.5°	15.0	15.6	16.9	18.2	21.4	24.5	25.3	26.0	25.3	24.5	22.1
85°	9.1	9.3	9.8	10.4	11.9	13.4	14.1	14.9	14.5	14.1	12.8
87.5°	4.1	4.1	4.3	4.5	4.8	5.2	6.1	7.1	6.5	5.9	5.4
90°	8.8	7.4	6.0	5.1	4.2	2.8	1.9	0.9	1.9	2.8	4.2
92.5°	71.6	47.0	32.1	23.7	19.1	14.9	10.2	7.0	10.2	14.9	19.1
95°	169.3	100.0	60.5	42.3	30.2	22.3	17.2	15.8	17.2	22.3	30.2
97.5°	188.3	107.9	68.8	48.8	36.7	29.8	25.6	25.1	25.6	29.8	36.7
100°	175.3	106.5	73.9	55.8	44.6	38.1	34.9	34.4	34.9	38.1	44.6
102.5°	164.2	108.4	80.0	63.7	53.9	47.9	45.1	44.2	45.1	47.9	53.9
105°	160.0	112.1	87.0	72.5	63.7	58.1	55.3	53.9	55.3	58.1	63.7
107.5°	159.0	118.1	95.8	82.3	73.9	68.4	65.6	64.2	65.6	68.4	73.9
110°	161.4	126.0	105.1	92.1	84.2	79.1	76.7	75.3	76.7	79.1	84.2



TEST NUMBER: P832133

CATALOG NUMBER: S123RDIP-S340D585U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	166.0	133.9	114.9	102.3	94.4	89.3	87.0	85.6	87.0	89.3	94.4
115°	171.1	142.8	125.1	112.5	104.6	100.0	97.2	95.3	97.2	100.0	104.6
117.5°	177.6	152.1	134.4	122.8	113.9	109.7	107.4	105.1	107.4	109.7	113.9
120°	185.1	160.9	144.2	132.5	123.7	119.0	116.7	115.3	116.7	119.0	123.7
122.5°	192.1	170.2	153.9	141.4	133.0	127.9	125.6	124.2	125.6	127.9	133.0
125°	199.5	179.0	162.8	150.2	141.4	136.3	133.5	132.5	133.5	136.3	141.4
127.5°	205.5	186.9	171.1	158.6	148.8	143.7	140.4	139.0	140.4	143.7	148.8
130°	211.6	193.9	178.6	166.0	156.2	150.7	146.5	145.1	146.5	150.7	156.2
132.5°	217.2	200.0	185.1	173.0	163.2	156.2	151.6	149.7	151.6	156.2	163.2
135°	221.8	206.0	191.6	179.0	169.3	162.3	157.2	155.3	157.2	162.3	169.3
137.5°	225.5	210.2	196.2	184.6	174.8	167.4	162.3	160.4	162.3	167.4	174.8
140°	228.3	214.4	200.9	189.3	180.0	172.5	167.9	165.5	167.9	172.5	180.0
142.5°	231.1	217.6	204.6	193.9	184.6	178.1	173.0	171.1	173.0	178.1	184.6
145°	233.0	220.4	208.3	197.6	189.7	182.8	178.6	177.2	178.6	182.8	189.7
147.5°	234.4	222.7	211.6	202.3	194.4	188.3	184.1	183.2	184.1	188.3	194.4
150°	234.8	225.1	214.4	206.0	199.5	193.5	189.7	189.3	189.7	193.5	199.5
152.5°	235.8	226.5	217.6	209.7	204.1	199.0	195.3	195.3	195.3	199.0	204.1
155°	235.8	228.3	220.4	213.9	208.8	204.1	201.4	201.4	201.4	204.1	208.8
157.5°	236.2	229.3	222.7	217.6	213.0	208.8	206.5	206.0	206.5	208.8	213.0
160°	236.2	230.7	225.1	220.4	217.2	213.4	211.6	211.6	211.6	213.4	217.2
162.5°	235.8	231.1	226.5	222.7	220.0	217.2	215.8	215.8	215.8	217.2	220.0
165°	234.8	231.6	227.9	224.6	222.7	220.4	219.5	220.0	219.5	220.4	222.7
167.5°	234.4	231.6	228.8	226.5	225.1	223.2	222.7	223.2	222.7	223.2	225.1
170°	233.0	231.1	228.8	227.9	226.9	225.5	225.1	226.0	225.1	225.5	226.9
172.5°	232.5	231.1	229.3	228.8	228.3	227.4	227.4	227.9	227.4	227.4	228.3
175°	231.6	230.7	229.7	229.3	229.3	228.3	228.8	229.3	228.8	228.3	229.3
177.5°	231.1	230.2	229.7	229.7	229.7	229.3	229.7	230.2	229.7	229.3	229.7
180°	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7



TEST NUMBER: P832133

CATALOG NUMBER: S123RDIP-S340D585U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7	905.7
2.5°	876.8	866.2	855.6	848.0	840.4	830.9	821.4	821.1	820.7	813.6	806.6
5°	824.8	806.4	788.0	770.0	752.0	734.0	716.0	711.9	707.8	701.7	695.6
7.5°	778.7	749.4	720.1	697.0	674.0	656.0	638.0	625.7	613.5	604.0	594.5
10°	729.3	693.0	656.6	628.7	600.9	581.4	561.9	547.8	533.6	527.0	520.3
12.5°	678.1	638.5	599.0	571.7	544.4	521.0	497.6	484.8	472.0	462.7	453.4
15°	630.9	588.4	545.9	516.9	488.0	466.1	444.1	431.3	418.5	409.2	400.0
17.5°	585.3	542.4	499.5	470.1	440.8	420.9	401.1	388.6	376.2	370.4	364.7
20°	543.7	500.4	457.1	429.5	401.8	382.3	362.8	356.1	349.4	344.1	338.7
22.5°	502.4	460.9	419.3	392.7	366.2	352.0	337.9	332.5	327.2	323.1	319.0
25°	467.9	426.5	385.1	361.9	338.7	327.7	316.8	313.2	309.7	305.6	301.5
27.5°	433.0	393.6	354.3	335.7	317.1	308.2	299.3	294.9	290.4	287.1	283.7
30°	402.2	365.8	329.4	314.0	298.6	290.8	283.0	278.1	273.3	270.2	267.0
32.5°	372.5	340.2	307.9	294.7	281.5	273.9	266.3	261.6	257.0	253.3	249.6
35°	345.0	317.0	288.9	276.8	264.8	257.2	249.6	244.9	240.3	236.6	232.8
37.5°	320.9	295.4	270.0	258.6	247.3	240.6	234.0	229.1	224.3	220.4	216.5
40°	298.2	275.7	253.3	242.3	231.4	224.1	216.9	212.6	208.3	204.8	201.3
42.5°	278.1	257.5	236.9	226.2	215.4	208.5	201.6	196.6	191.6	189.6	187.5
45°	257.0	238.8	220.6	210.2	199.8	192.5	185.3	181.0	176.8	174.9	173.1
47.5°	238.4	221.5	204.6	194.4	184.2	177.7	171.2	167.9	164.5	161.9	159.3
50°	220.2	203.9	187.5	177.7	167.9	162.3	156.7	152.6	148.5	146.7	144.8
52.5°	202.8	187.9	173.1	163.0	153.0	147.6	142.2	138.7	135.2	131.3	127.4
55°	183.1	170.1	157.1	148.2	139.3	133.7	128.1	124.0	119.9	115.9	111.8
57.5°	166.7	153.9	141.1	133.1	125.1	119.8	114.4	109.9	105.5	102.1	98.8
60°	148.9	137.8	126.6	118.8	111.0	105.8	100.6	96.4	92.1	90.4	88.8
62.5°	132.2	121.8	111.4	104.5	97.7	92.7	87.6	84.9	82.1	81.0	79.8
65°	115.1	106.2	97.3	91.0	84.7	80.4	76.1	74.8	73.5	72.6	71.7
67.5°	99.2	91.5	83.9	78.4	72.8	69.8	66.8	65.4	63.9	62.8	61.6
70°	84.7	78.0	71.3	66.5	61.6	58.9	56.1	54.8	53.5	51.4	49.4
72.5°	69.1	63.9	58.7	55.0	51.2	48.8	46.4	43.8	41.2	39.4	37.5
75°	57.2	52.0	46.8	43.3	39.7	36.9	34.2	33.2	32.3	31.8	31.2
77.5°	43.8	39.4	34.9	32.1	29.3	28.0	26.7	26.2	25.6	25.4	25.3
80°	31.6	27.9	24.1	22.7	21.2	20.8	20.4	20.1	19.7	19.5	19.3
82.5°	19.7	17.8	16.0	15.6	15.2	15.0	14.9	14.7	14.5	14.3	14.1
85°	11.5	10.8	10.0	9.8	9.7	9.5	9.3	9.3	9.3	9.3	9.3
87.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.6	4.5
90°	5.1	6.0	7.4	8.8	10.2	11.6	11.2	11.6	12.1	12.6	13.5
92.5°	23.7	32.1	47.0	71.6	95.8	86.5	64.6	46.0	35.8	31.2	27.9
95°	42.3	60.5	100.0	169.3	245.5	275.8	223.7	167.4	113.5	88.8	72.1
97.5°	48.8	68.8	107.9	188.3	316.7	424.1	438.5	384.6	290.2	228.8	175.8
100°	55.8	73.9	106.5	175.3	297.6	440.4	532.0	548.3	510.6	456.2	390.2
102.5°	63.7	80.0	108.4	164.2	269.7	410.2	536.6	602.7	610.6	584.5	548.7
105°	72.5	87.0	112.1	160.0	247.9	373.9	507.3	604.5	651.0	659.9	647.8
107.5°	82.3	95.8	118.1	159.0	232.0	341.8	465.5	576.6	649.6	685.9	698.5
110°	92.1	105.1	126.0	161.4	223.7	315.3	426.4	532.9	618.5	677.1	709.6



TEST NUMBER: P832133

CATALOG NUMBER: S123RDIP-S340D585U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	102.3	114.9	133.9	166.0	219.0	297.6	392.5	489.7	577.6	645.0	689.2
115°	112.5	125.1	142.8	171.1	218.6	286.0	366.4	452.5	533.4	601.7	652.4
117.5°	122.8	134.4	152.1	177.6	219.0	278.1	349.2	423.6	495.3	558.0	610.6
120°	132.5	144.2	160.9	185.1	220.9	273.0	336.2	401.8	464.6	520.4	567.3
122.5°	141.4	153.9	170.2	192.1	224.1	269.7	325.5	384.6	439.9	490.6	533.4
125°	150.2	162.8	179.0	199.5	227.4	266.9	316.7	369.7	420.4	465.0	502.2
127.5°	158.6	171.1	186.9	205.5	231.1	265.5	308.3	356.2	402.2	443.2	477.6
130°	166.0	178.6	193.9	211.6	234.8	264.1	301.8	343.7	385.5	423.2	454.8
132.5°	173.0	185.1	200.0	217.2	237.6	263.7	295.8	332.0	369.7	404.1	433.9
135°	179.0	191.6	206.0	221.8	240.4	263.2	290.6	321.8	354.8	385.0	411.5
137.5°	184.6	196.2	210.2	225.5	242.3	262.3	286.0	312.0	339.9	366.9	390.6
140°	189.3	200.9	214.4	228.3	244.1	261.8	281.8	303.7	327.4	349.7	369.7
142.5°	193.9	204.6	217.6	231.1	245.5	260.9	278.1	295.8	315.3	333.9	350.6
145°	197.6	208.3	220.4	233.0	246.0	259.9	274.8	289.7	305.1	319.9	333.4
147.5°	202.3	211.6	222.7	234.4	246.0	258.6	271.6	284.6	297.2	309.7	319.5
150°	206.0	214.4	225.1	234.8	246.0	256.7	268.3	279.0	289.7	299.5	308.3
152.5°	209.7	217.6	226.5	235.8	244.6	254.4	264.6	273.9	282.7	291.1	298.1
155°	213.9	220.4	228.3	235.8	243.7	251.6	260.9	268.8	276.2	283.2	288.8
157.5°	217.6	222.7	229.3	236.2	242.3	249.3	256.7	263.2	269.7	275.3	279.9
160°	220.4	225.1	230.7	236.2	241.3	246.5	252.5	258.6	263.7	268.3	271.6
162.5°	222.7	226.5	231.1	235.8	239.5	243.7	248.3	253.0	257.2	261.3	264.1
165°	224.6	227.9	231.6	234.8	237.6	240.9	244.6	248.3	251.1	254.4	256.7
167.5°	226.5	228.8	231.6	234.4	235.8	238.1	240.9	244.1	246.5	248.3	250.2
170°	227.9	228.8	231.1	233.0	233.9	235.3	237.6	240.0	241.3	243.2	244.1
172.5°	228.8	229.3	231.1	232.5	232.5	233.0	234.4	236.2	237.2	238.6	239.0
175°	229.3	229.7	230.7	231.6	231.1	231.1	232.0	233.0	233.4	234.4	234.4
177.5°	229.7	229.7	230.2	231.1	230.2	229.7	230.2	230.7	231.1	231.6	231.6
180°	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7	229.7



TEST NUMBER: P832133

CATALOG NUMBER: S123RDIP-S340D585U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	905.7	905.7	905.7	905.7
2.5°	804.7	802.9	802.1	801.4
5°	689.8	684.0	682.7	681.4
7.5°	592.1	589.7	581.7	573.7
10°	512.8	505.4	502.1	498.7
12.5°	446.6	439.7	438.6	437.5
15°	395.1	390.3	388.6	387.0
17.5°	361.3	358.0	355.9	353.9
20°	336.3	333.8	332.4	330.9
22.5°	317.1	315.3	314.2	313.1
25°	298.8	296.0	295.0	294.1
27.5°	281.3	278.9	278.0	277.0
30°	265.0	262.9	261.6	260.3
32.5°	247.1	244.7	244.0	243.2
35°	231.4	229.9	229.1	228.4
37.5°	214.6	212.8	211.7	210.6
40°	200.3	199.4	198.9	198.3
42.5°	185.9	184.2	184.0	183.8
45°	171.4	169.7	169.3	169.0
47.5°	157.8	156.3	156.2	156.0
50°	142.8	140.7	139.3	137.8
52.5°	125.5	123.7	122.4	121.1
55°	109.7	107.7	106.6	105.5
57.5°	97.9	96.9	96.4	95.8
60°	88.2	87.6	87.3	86.9
62.5°	79.3	78.7	78.7	78.7
65°	71.1	70.6	70.0	69.4
67.5°	60.5	59.4	59.2	59.0
70°	47.7	46.0	45.9	45.7
72.5°	37.3	37.1	36.8	36.4
75°	30.8	30.5	30.5	30.5
77.5°	24.9	24.5	24.5	24.5
80°	19.1	18.9	19.1	19.3
82.5°	14.1	14.1	13.9	13.7
85°	9.1	8.9	8.9	8.9
87.5°	4.5	4.5	4.5	4.5
90°	13.0	13.5	14.0	13.5
92.5°	27.0	25.1	25.6	24.6
95°	63.2	59.1	55.8	53.9
97.5°	144.6	127.0	115.8	110.7
100°	343.2	309.2	291.1	291.6
102.5°	514.8	489.7	475.3	461.8
105°	626.4	608.7	593.8	591.5
107.5°	695.7	687.3	681.3	676.1
110°	722.6	726.4	725.4	724.5



TEST NUMBER: P832133

CATALOG NUMBER: S123RDIP-S340D585U930-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	715.7	729.2	733.8	734.3
115°	687.3	707.8	717.1	719.4
117.5°	646.8	669.6	683.6	686.8
120°	604.1	630.1	641.3	644.1
122.5°	565.0	587.8	600.3	604.1
125°	532.0	552.4	564.1	567.3
127.5°	504.6	522.2	532.9	535.7
130°	479.4	496.2	505.9	509.7
132.5°	456.7	473.4	481.8	484.1
135°	434.3	448.3	456.7	459.9
137.5°	410.2	424.6	431.5	434.3
140°	387.4	400.4	407.8	407.4
142.5°	365.0	376.2	382.7	382.3
145°	345.0	354.8	358.5	359.5
147.5°	328.8	335.7	339.5	339.9
150°	315.3	320.4	323.2	323.2
152.5°	303.2	307.8	309.2	309.2
155°	293.0	296.7	297.6	298.1
157.5°	283.7	286.5	287.4	287.4
160°	274.8	277.6	277.6	277.2
162.5°	266.0	268.3	268.3	267.9
165°	258.6	260.4	259.9	259.9
167.5°	251.1	252.5	252.0	252.0
170°	244.6	245.5	245.1	245.1
172.5°	239.0	240.0	239.0	238.6
175°	234.4	234.8	234.4	233.9
177.5°	231.1	231.6	230.7	230.7
180°	229.7	229.7	229.7	229.7



TEST NUMBER: P832133

CATALOG NUMBER: S123RDIP-S340D585U930-4F0-1E-UDD-G4

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	7.75	8.50	8.79	9.54	10.93	12.41	13.16	13.46	14.20	15.60
	3H	8.97	9.63	10.02	10.68	12.10	13.91	14.57	14.96	15.62	17.04
	4H	9.34	9.97	10.41	11.03	12.45	14.39	15.02	15.46	16.07	17.50
	6H	9.62	10.20	10.69	11.26	12.69	14.70	15.28	15.77	16.34	17.77
	8H	9.71	10.26	10.78	11.33	12.76	14.78	15.33	15.85	16.40	17.83
	12H	9.76	10.28	10.84	11.34	12.80	14.81	15.33	15.89	16.39	17.85
4H	2H	8.46	9.09	9.53	10.15	11.57	12.40	13.03	13.47	14.08	15.51
	3H	9.83	10.35	10.90	11.43	12.87	14.05	14.57	15.13	15.65	17.09
	4H	10.28	10.76	11.36	11.83	13.29	14.65	15.13	15.74	16.20	17.66
	6H	10.64	11.05	11.73	12.14	13.60	15.09	15.50	16.18	16.59	18.04
	8H	10.77	11.15	11.86	12.23	13.70	15.22	15.60	16.31	16.69	18.15
	12H	10.84	11.18	11.94	12.28	13.76	15.28	15.62	16.38	16.72	18.19
8H	4H	10.59	10.97	11.68	12.05	13.52	14.62	15.00	15.70	16.08	17.55
	6H	11.05	11.36	12.16	12.49	13.95	15.11	15.42	16.22	16.55	18.02
	8H	11.24	11.52	12.36	12.63	14.11	15.30	15.57	16.41	16.68	18.17
	12H	11.38	11.62	12.50	12.73	14.25	15.41	15.65	16.53	16.75	18.28
12H	4H	10.59	10.94	11.70	12.04	13.51	14.56	14.91	15.67	16.01	17.48
	6H	11.11	11.38	12.22	12.49	13.98	15.08	15.36	16.20	16.47	17.95
	8H	11.32	11.56	12.44	12.67	14.19	15.27	15.52	16.39	16.62	18.14