

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: P832162

Luminaire Tested: S123RDIP-S340D805U935-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832162
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-9)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDIP-S340D805U935-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 805 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

Summary

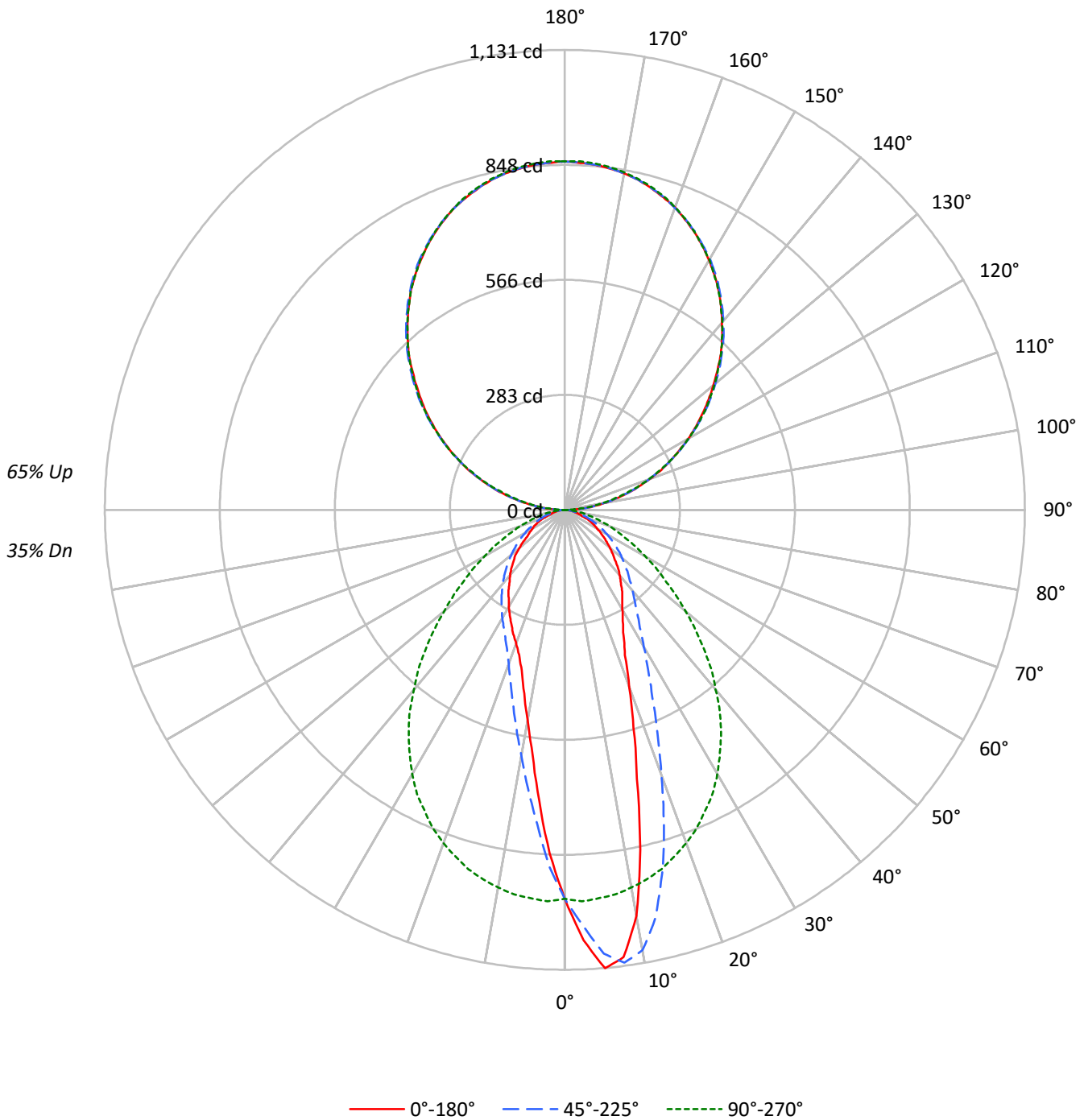
Lumens per Lamp: N/A
Luminaire Lumens: 3644.4 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 33
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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35				
1	95	91	87	84	86	82	79	77	66	64	62	52	50	49	38	37	37	30				
2	87	80	74	70	78	73	68	64	59	55	53	46	44	42	34	33	32	26				
3	80	71	64	59	72	64	59	54	52	48	45	41	39	36	31	29	28	23				
4	73	63	56	50	66	58	51	46	47	42	39	37	34	32	28	26	24	20				
5	67	57	49	43	61	52	45	40	42	38	34	34	30	28	26	24	22	18				
6	62	51	43	38	56	47	40	35	38	34	30	31	27	25	24	21	20	16				
7	58	46	39	33	52	42	36	31	35	30	27	28	25	22	22	19	18	15				
8	54	42	35	30	49	39	32	28	32	27	24	26	22	20	20	18	16	14				
9	50	38	31	27	45	35	29	25	30	25	22	24	21	18	19	16	15	13				
10	47	35	29	24	43	33	27	23	27	23	20	22	19	17	18	15	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	10296	10296	10296	10296	10296
5°	12225	11835	10361	8375	7775
10°	11076	12021	10309	6710	5757
15°	7626	10307	10200	5485	4553
20°	5306	7936	9995	4624	4002
25°	4043	6048	9697	4111	3689
30°	3519	4835	9324	3817	3417
35°	3231	4079	8796	3569	3169
40°	2948	3642	8106	3326	2942
45°	2662	3331	7360	3095	2716
50°	2416	3073	6482	2870	2436
55°	2186	2822	5637	2650	2091
60°	1959	2566	4898	2407	1976
65°	1808	2277	4215	2162	1867
70°	1470	1970	3679	1958	1517
75°	1289	1564	3115	1622	1339
80°	1165	1327	2554	1364	1265
85°	1062	1161	1939	1235	1161

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 7767 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.2	2.4
10°-20°	201.7	5.5
20°-30°	231.5	6.4
30°-40°	228.2	6.3
40°-50°	201.2	5.5
50°-60°	154.8	4.2
60°-70°	101.8	2.8
70°-80°	49.4	1.4
80°-90°	14.3	0.4
90°-100°	55.2	1.5
100°-110°	167.0	4.6
110°-120°	284.2	7.8
120°-130°	373.9	10.3
130°-140°	420.3	11.5
140°-150°	413.2	11.3
150°-160°	347.9	9.5
160°-170°	231.6	6.4
170°-180°	81.1	2.2
0°-30°	520.4	14.3
0°-40°	748.5	20.5
0°-60°	1104.5	30.3
0°-90°	1270.0	34.8
90°-120°	506.4	13.9
90°-150°	1713.8	47.0
90°-180°	2374.0	65.1
0°-180°	3644.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	956	956	956	956	956	
5°	1131	1095	959	775	720	103
15°	684	925	915	492	409	193
25°	340	509	816	346	311	161
35°	246	310	669	272	241	153
45°	175	219	484	203	178	136
55°	116	150	300	141	111	104
65°	71	89	166	85	73	70
75°	31	38	75	39	32	33
85°	9	9	16	10	9	9
90°	20	16	1	16	20	10
95°	52	50	40	50	52	53
105°	160	159	152	159	160	170
115°	287	287	286	287	287	284
125°	414	419	419	419	414	370
135°	543	547	543	547	543	417
145°	659	662	659	662	659	412
155°	753	755	755	755	753	347
165°	819	820	822	820	819	231
175°	852	852	855	852	852	81
180°	857	857	857	857	857	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5
2.5°	1060.0	1056.7	1053.4	1052.4	1051.4	1048.3	1045.1	1038.1	1031.0	1023.8	1016.5
5°	1131.4	1131.8	1132.2	1131.2	1130.2	1126.1	1122.0	1113.4	1104.7	1095.3	1085.9
7.5°	1109.5	1115.7	1122.0	1123.2	1124.4	1127.5	1130.6	1128.7	1126.7	1123.2	1119.6
10°	1013.4	1013.0	1012.6	1019.6	1026.7	1047.7	1068.7	1079.5	1090.2	1099.8	1109.5
12.5°	856.5	857.1	857.7	880.8	904.0	923.8	943.6	971.0	998.5	1028.1	1057.7
15°	684.3	693.9	703.6	724.1	744.7	774.5	804.3	841.2	878.1	924.9	971.8
17.5°	562.0	566.1	570.2	590.0	609.8	638.1	666.3	708.1	749.8	810.2	870.6
20°	463.2	466.9	470.6	484.9	499.2	526.3	553.4	593.2	633.0	692.8	752.6
22.5°	386.7	393.9	401.2	410.8	420.4	440.0	459.6	500.2	540.8	595.3	649.8
25°	340.4	343.7	347.1	355.3	363.5	382.4	401.2	428.1	454.9	509.2	563.6
27.5°	309.0	310.0	311.0	317.1	323.1	335.3	347.5	372.4	397.3	442.0	486.7
30°	283.1	284.9	286.7	291.4	296.1	304.9	313.7	331.4	349.0	389.0	429.0
32.5°	263.1	264.1	265.1	269.0	273.0	279.4	285.9	299.8	313.7	344.3	374.9
35°	245.9	246.1	246.3	249.2	252.2	258.4	264.7	276.3	287.9	310.4	333.0
37.5°	226.3	227.7	229.0	231.2	233.3	238.8	244.3	253.7	263.1	281.8	300.4
40°	209.8	211.0	212.2	214.7	217.3	221.6	225.9	234.5	243.1	259.2	275.3
42.5°	193.3	194.1	194.9	197.5	200.0	205.3	210.6	217.5	224.3	237.7	251.0
45°	174.9	176.9	178.8	181.6	184.3	188.8	193.3	200.4	207.5	218.8	230.2
47.5°	159.6	160.6	161.6	163.9	166.3	171.8	177.3	183.5	189.8	200.4	211.0
50°	144.3	144.7	145.1	147.3	149.4	154.3	159.2	166.5	173.7	183.5	193.3
52.5°	129.8	130.8	131.8	133.9	136.1	139.4	142.8	150.2	157.7	167.3	176.9
55°	116.5	117.1	117.7	119.2	120.8	124.7	128.6	135.1	141.6	150.4	159.2
57.5°	103.9	104.7	105.5	106.7	107.8	111.4	114.9	120.6	126.3	135.1	143.9
60°	91.0	92.0	92.9	94.3	95.7	98.4	101.2	106.3	111.4	119.2	127.1
62.5°	81.6	81.8	82.0	83.1	84.3	86.3	88.2	92.4	96.5	104.3	112.2
65°	71.0	71.6	72.2	72.7	73.3	74.9	76.5	80.0	83.5	89.4	95.3
67.5°	60.0	60.6	61.2	62.2	63.1	64.5	65.9	68.2	70.6	76.1	81.6
70°	46.7	46.7	46.7	48.2	49.8	52.2	54.5	56.3	58.0	62.6	67.1
72.5°	38.0	38.2	38.4	38.6	38.8	40.2	41.6	44.5	47.5	50.2	52.9
75°	31.0	31.2	31.4	31.6	31.8	32.2	32.6	33.5	34.5	37.6	40.8
77.5°	24.7	24.9	25.1	25.3	25.5	25.9	26.3	26.7	27.1	28.2	29.4
80°	18.8	19.0	19.2	19.4	19.6	19.8	20.0	20.4	20.8	21.4	22.0
82.5°	13.7	13.7	13.7	13.7	13.7	14.1	14.5	14.5	14.5	14.9	15.3
85°	8.6	8.6	8.6	8.8	9.0	9.0	9.0	9.2	9.4	9.4	9.4
87.5°	3.9	3.7	3.5	3.7	3.9	3.9	3.9	4.1	4.3	4.3	4.3
90°	20.2	19.9	19.6	19.3	19.0	18.5	18.0	17.4	16.8	16.2	14.2
92.5°	28.9	29.2	29.5	29.8	30.1	30.1	29.6	29.2	28.7	28.3	27.4
95°	52.5	52.5	52.5	52.5	52.5	52.2	51.6	51.0	50.4	49.8	48.6
97.5°	75.4	75.5	75.7	75.8	76.0	75.7	74.9	74.2	73.4	72.7	71.8
100°	102.3	102.0	101.7	101.4	101.1	100.8	100.3	99.9	99.4	99.0	98.2
102.5°	129.9	130.1	130.2	130.4	130.5	130.4	129.9	129.5	129.0	128.6	127.5
105°	160.2	159.9	159.6	159.3	159.0	158.9	158.9	158.9	158.9	158.9	157.5
107.5°	191.2	191.3	191.5	191.6	191.8	191.6	191.2	190.7	190.3	189.8	189.2
110°	222.8	223.1	223.4	223.7	224.0	223.9	223.3	222.7	222.1	221.5	221.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	256.5	256.5	256.5	256.5	256.5	256.1	255.4	254.6	253.9	253.1	253.1
115°	286.8	286.9	287.1	287.2	287.4	287.4	287.2	287.1	286.9	286.8	287.1
117.5°	317.7	318.2	318.6	319.1	319.5	319.8	319.8	319.8	319.8	319.8	320.1
120°	350.7	351.0	351.3	351.6	351.9	352.1	352.3	352.4	352.6	352.7	353.5
122.5°	382.4	382.8	383.3	383.7	384.2	384.6	385.1	385.5	385.9	386.4	386.7
125°	414.0	414.6	415.2	415.8	416.4	417.0	417.6	418.2	418.8	419.4	419.7
127.5°	445.6	446.2	446.8	447.4	448.0	448.8	449.7	450.6	451.5	452.4	452.7
130°	476.6	477.6	478.7	479.7	480.8	481.6	482.2	482.8	483.4	484.0	484.5
132.5°	508.9	509.7	510.4	511.2	511.9	512.7	513.4	514.1	514.9	515.6	515.9
135°	542.6	542.9	543.2	543.5	543.8	544.2	544.8	545.4	546.0	546.6	546.8
137.5°	572.2	572.6	573.1	573.5	574.0	574.6	575.3	576.1	576.8	577.6	577.1
140°	601.1	602.2	603.2	604.3	605.3	605.9	606.1	606.2	606.4	606.5	606.4
142.5°	630.8	631.5	632.3	633.0	633.7	634.2	634.3	634.5	634.6	634.8	634.5
145°	659.0	659.6	660.2	660.8	661.4	661.8	661.9	662.1	662.2	662.4	661.9
147.5°	684.6	685.5	686.4	687.3	688.2	688.6	688.6	688.6	688.6	688.6	688.2
150°	708.8	709.7	710.6	711.5	712.4	712.9	712.9	712.9	712.9	712.9	712.6
152.5°	732.4	733.2	733.9	734.6	735.4	735.6	735.3	735.0	734.7	734.4	734.3
155°	753.3	754.3	755.4	756.4	757.5	757.7	757.1	756.5	755.9	755.3	755.1
157.5°	772.8	773.7	774.6	775.5	776.4	776.5	775.9	775.3	774.7	774.1	774.0
160°	791.6	792.2	792.8	793.4	794.0	794.0	793.2	792.5	791.7	791.0	791.0
162.5°	805.8	806.8	807.9	808.9	810.0	810.1	809.4	808.6	807.9	807.1	807.0
165°	819.2	820.3	821.3	822.4	823.4	823.5	822.6	821.7	820.8	819.9	819.9
167.5°	831.4	832.3	833.2	834.1	834.9	834.9	834.1	833.2	832.3	831.4	831.2
170°	840.1	841.2	842.2	843.3	844.3	844.3	843.3	842.2	841.2	840.1	840.1
172.5°	846.8	847.9	848.9	850.0	851.0	851.1	850.2	849.3	848.4	847.5	847.5
175°	851.6	852.6	853.6	854.7	855.7	855.8	854.9	854.0	853.1	852.2	852.2
177.5°	854.2	855.3	856.3	857.4	858.4	858.5	857.6	856.7	855.8	854.9	854.9
180°	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5
2.5°	1015.5	1014.5	1005.1	995.7	986.5	977.3	970.4	963.6	952.0	940.4	933.2
5°	1078.5	1071.0	1056.1	1041.2	1018.9	996.5	977.7	958.9	934.9	911.0	891.0
7.5°	1113.6	1107.5	1089.5	1071.4	1041.8	1012.2	982.8	953.4	918.1	882.8	852.6
10°	1114.6	1119.6	1104.7	1089.8	1056.5	1023.2	983.2	943.2	895.7	848.3	809.2
12.5°	1079.6	1101.6	1098.5	1095.3	1061.4	1027.5	978.9	930.2	872.0	813.8	764.9
15°	1014.4	1056.9	1069.5	1082.0	1054.0	1025.9	970.6	915.3	846.9	778.5	722.4
17.5°	930.2	989.8	1023.0	1056.1	1035.7	1015.3	954.7	894.2	817.1	740.0	679.0
20°	830.6	908.7	960.6	1012.6	1005.1	997.7	935.1	872.6	789.4	706.3	640.2
22.5°	732.2	814.5	886.3	958.1	965.7	973.4	910.2	847.1	756.1	665.1	597.9
25°	647.3	731.0	816.5	902.0	919.3	936.5	876.5	816.5	722.2	627.9	561.0
27.5°	566.3	645.9	740.0	834.1	865.5	896.9	842.0	787.1	688.8	590.6	523.9
30°	500.2	571.4	667.5	763.6	807.3	851.0	800.6	750.2	652.8	555.3	490.0
32.5°	438.6	502.4	598.8	695.3	746.1	796.9	753.4	709.8	616.1	522.4	457.9
35°	390.0	447.1	537.1	627.1	683.9	740.8	705.1	669.4	577.9	486.3	425.3
37.5°	348.2	396.1	480.6	565.1	625.5	685.9	656.1	626.3	540.2	454.1	396.5
40°	313.7	352.2	430.8	509.4	568.6	627.9	602.4	576.9	499.8	422.8	368.8
42.5°	284.1	317.3	387.9	458.4	512.8	567.1	550.2	533.4	463.5	393.7	343.7
45°	258.0	285.9	348.1	410.2	460.2	510.2	496.9	483.5	423.3	363.2	317.3
47.5°	234.9	258.8	314.3	369.8	414.7	459.6	447.3	434.9	385.1	335.3	293.5
50°	213.7	234.1	280.4	326.7	367.1	407.5	397.3	387.1	345.9	304.7	268.6
52.5°	193.7	210.6	252.2	293.7	326.3	358.8	351.0	343.2	311.4	279.6	246.9
55°	174.7	190.2	225.3	260.4	288.2	316.1	308.2	300.4	275.7	251.0	222.2
57.5°	157.5	171.0	199.4	227.9	250.0	272.2	268.4	264.7	244.1	223.5	199.8
60°	139.2	151.4	175.9	200.4	218.2	236.1	231.8	227.5	212.8	198.0	177.7
62.5°	122.9	133.7	153.3	172.9	187.5	202.0	198.8	195.7	184.5	173.3	156.5
65°	105.9	116.5	132.4	148.2	159.6	171.0	168.2	165.5	157.1	148.6	135.1
67.5°	90.4	99.2	112.9	126.7	134.3	142.0	140.4	138.8	132.4	125.9	115.3
70°	74.7	82.4	93.7	105.1	110.4	115.7	116.3	116.9	111.0	105.1	97.3
72.5°	59.0	65.1	75.7	86.3	90.4	94.5	94.3	94.1	90.6	87.1	80.0
75°	45.3	49.8	58.0	66.3	69.8	73.3	74.1	74.9	71.6	68.2	64.3
77.5°	32.6	35.7	42.0	48.2	52.2	56.1	56.5	56.9	55.3	53.7	50.0
80°	22.9	23.9	27.8	31.8	35.9	40.0	40.6	41.2	39.6	38.0	35.7
82.5°	15.9	16.5	17.8	19.2	22.5	25.9	26.7	27.5	26.7	25.9	23.3
85°	9.6	9.8	10.4	11.0	12.5	14.1	14.9	15.7	15.3	14.9	13.5
87.5°	4.3	4.3	4.5	4.7	5.1	5.5	6.5	7.5	6.9	6.3	5.7
90°	12.3	10.3	8.4	6.7	5.2	3.7	2.2	0.7	2.2	3.7	5.2
92.5°	26.5	25.6	24.7	23.8	22.9	22.0	21.1	20.2	21.1	22.0	22.9
95°	47.4	46.2	45.0	43.9	42.9	41.8	40.8	39.7	40.8	41.8	42.9
97.5°	70.9	70.0	69.1	68.3	67.5	66.8	66.0	65.3	66.0	66.8	67.5
100°	97.5	96.7	96.0	95.1	94.2	93.3	92.4	91.6	92.4	93.3	94.2
102.5°	126.5	125.4	124.4	123.6	123.2	122.7	122.3	121.8	122.3	122.7	123.2
105°	156.2	154.8	153.5	152.7	152.4	152.1	151.8	151.5	151.8	152.1	152.4
107.5°	188.6	188.0	187.4	187.1	186.9	186.8	186.6	186.5	186.6	186.8	186.9
110°	220.9	220.6	220.3	220.0	219.7	219.4	219.1	218.8	219.1	219.4	219.7



TEST NUMBER: P832162

CATALOG NUMBER: S123RDIP-S340D805U935-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	253.1	253.1	253.1	253.0	252.9	252.7	252.6	252.4	252.6	252.7	252.9
115°	287.4	287.7	288.0	287.9	287.4	287.0	286.5	286.1	286.5	287.0	287.4
117.5°	320.4	320.7	321.0	321.0	320.9	320.7	320.6	320.4	320.6	320.7	320.9
120°	354.2	355.0	355.7	355.7	354.8	353.9	353.0	352.1	353.0	353.9	354.8
122.5°	387.0	387.3	387.6	387.4	386.8	386.2	385.6	385.1	385.6	386.2	386.8
125°	420.0	420.3	420.6	420.5	420.1	419.6	419.2	418.7	419.2	419.6	420.1
127.5°	453.0	453.3	453.6	453.3	452.4	451.5	450.6	449.7	450.6	451.5	452.4
130°	484.9	485.4	485.8	485.4	484.2	483.0	481.8	480.6	481.8	483.0	484.2
132.5°	516.2	516.5	516.8	516.4	515.2	514.0	512.8	511.6	512.8	514.0	515.2
135°	546.9	547.1	547.2	546.8	545.9	545.0	544.1	543.2	544.1	545.0	545.9
137.5°	576.7	576.2	575.8	575.2	574.4	573.7	572.9	572.2	572.9	573.7	574.4
140°	606.2	606.1	605.9	605.5	604.7	604.0	603.2	602.5	603.2	604.0	604.7
142.5°	634.2	633.9	633.6	633.1	632.3	631.6	630.8	630.1	630.8	631.6	632.3
145°	661.5	661.0	660.6	660.2	659.9	659.6	659.3	659.0	659.3	659.6	659.9
147.5°	687.8	687.3	686.9	686.3	685.7	685.1	684.5	683.9	684.5	685.1	685.7
150°	712.3	712.0	711.7	711.4	711.1	710.8	710.5	710.2	710.5	710.8	711.1
152.5°	734.1	734.0	733.8	733.5	733.1	732.6	732.2	731.7	732.2	732.6	733.1
155°	755.0	754.8	754.7	754.6	754.6	754.6	754.6	754.6	754.6	754.6	754.6
157.5°	773.8	773.7	773.5	773.5	773.7	773.8	774.0	774.1	774.0	773.8	773.7
160°	791.0	791.0	791.0	791.1	791.4	791.7	792.0	792.3	792.0	791.7	791.4
162.5°	806.8	806.7	806.5	806.7	807.1	807.6	808.0	808.5	808.0	807.6	807.1
165°	819.9	819.9	819.9	820.1	820.6	821.0	821.5	821.9	821.5	821.0	820.6
167.5°	831.1	830.9	830.8	831.0	831.6	832.2	832.8	833.4	832.8	832.2	831.6
170°	840.1	840.1	840.1	840.4	841.0	841.6	842.2	842.8	842.2	841.6	841.0
172.5°	847.5	847.5	847.5	847.8	848.4	849.0	849.6	850.2	849.6	849.0	848.4
175°	852.2	852.2	852.2	852.5	853.1	853.7	854.3	854.9	854.3	853.7	853.1
177.5°	854.9	854.9	854.9	855.2	855.8	856.4	857.0	857.6	857.0	856.4	855.8
180°	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9



TEST NUMBER: P832162

CATALOG NUMBER: S123RDIP-S340D805U935-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5	956.5
2.5°	925.9	914.7	903.6	895.5	887.5	877.5	867.5	867.1	866.7	859.2	851.8
5°	871.0	851.6	832.2	813.2	794.1	775.1	756.1	751.8	747.5	741.0	734.5
7.5°	822.4	791.4	760.4	736.1	711.8	692.8	673.8	660.8	647.9	637.9	627.9
10°	770.2	731.8	693.4	663.9	634.5	613.9	593.4	578.5	563.6	556.5	549.4
12.5°	716.1	674.3	632.6	603.7	574.9	550.2	525.5	512.0	498.5	488.6	478.8
15°	666.3	621.4	576.5	545.9	515.3	492.2	469.0	455.5	442.0	432.2	422.4
17.5°	618.1	572.8	527.5	496.5	465.5	444.5	423.5	410.4	397.3	391.2	385.1
20°	574.1	528.5	482.8	453.5	424.3	403.7	383.2	376.1	369.0	363.3	357.7
22.5°	530.6	486.7	442.8	414.7	386.7	371.8	356.9	351.2	345.5	341.2	336.9
25°	494.1	450.4	406.7	382.2	357.7	346.1	334.5	330.8	327.1	322.8	318.4
27.5°	457.3	415.7	374.1	354.5	334.9	325.5	316.1	311.4	306.7	303.1	299.6
30°	424.7	386.3	347.9	331.6	315.3	307.1	298.8	293.7	288.6	285.3	282.0
32.5°	393.3	359.2	325.1	311.2	297.3	289.2	281.2	276.3	271.4	267.5	263.5
35°	364.3	334.7	305.1	292.4	279.6	271.6	263.5	258.6	253.7	249.8	245.9
37.5°	338.8	312.0	285.1	273.1	261.2	254.1	247.1	242.0	236.9	232.8	228.6
40°	314.9	291.2	267.5	255.9	244.3	236.7	229.0	224.5	220.0	216.3	212.6
42.5°	293.7	272.0	250.2	238.8	227.5	220.2	212.9	207.7	202.4	200.2	198.0
45°	271.4	252.2	232.9	222.0	211.0	203.3	195.7	191.2	186.7	184.7	182.8
47.5°	251.8	233.9	216.1	205.3	194.5	187.7	180.8	177.3	173.7	171.0	168.2
50°	232.6	215.3	198.0	187.7	177.3	171.4	165.5	161.2	156.9	154.9	152.9
52.5°	214.1	198.4	182.8	172.2	161.6	155.9	150.2	146.5	142.8	138.6	134.5
55°	193.3	179.6	165.9	156.5	147.1	141.2	135.3	131.0	126.7	122.4	118.0
57.5°	176.1	162.6	149.0	140.6	132.2	126.5	120.8	116.1	111.4	107.8	104.3
60°	157.3	145.5	133.7	125.5	117.3	111.8	106.3	101.8	97.3	95.5	93.7
62.5°	139.6	128.6	117.7	110.4	103.1	97.8	92.6	89.6	86.7	85.5	84.3
65°	121.6	112.2	102.7	96.1	89.4	84.9	80.4	79.0	77.6	76.7	75.7
67.5°	104.7	96.7	88.6	82.7	76.9	73.7	70.6	69.0	67.5	66.3	65.1
70°	89.4	82.4	75.3	70.2	65.1	62.2	59.2	57.8	56.5	54.3	52.2
72.5°	72.9	67.5	62.0	58.0	54.1	51.6	49.0	46.3	43.5	41.6	39.6
75°	60.4	54.9	49.4	45.7	42.0	39.0	36.1	35.1	34.1	33.5	32.9
77.5°	46.3	41.6	36.9	33.9	31.0	29.6	28.2	27.6	27.1	26.9	26.7
80°	33.3	29.4	25.5	23.9	22.4	22.0	21.6	21.2	20.8	20.6	20.4
82.5°	20.8	18.8	16.9	16.5	16.1	15.9	15.7	15.5	15.3	15.1	14.9
85°	12.2	11.4	10.6	10.4	10.2	10.0	9.8	9.8	9.8	9.8	9.8
87.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	4.9	4.7
90°	6.7	8.4	10.3	12.3	14.2	16.2	16.8	17.4	18.0	18.5	19.0
92.5°	23.8	24.7	25.6	26.5	27.4	28.3	28.7	29.2	29.6	30.1	30.1
95°	43.9	45.0	46.2	47.4	48.6	49.8	50.4	51.0	51.6	52.2	52.5
97.5°	68.3	69.1	70.0	70.9	71.8	72.7	73.4	74.2	74.9	75.7	76.0
100°	95.1	96.0	96.7	97.5	98.2	99.0	99.4	99.9	100.3	100.8	101.1
102.5°	123.6	124.4	125.4	126.5	127.5	128.6	129.0	129.5	129.9	130.4	130.5
105°	152.7	153.5	154.8	156.2	157.5	158.9	158.9	158.9	158.9	158.9	159.0
107.5°	187.1	187.4	188.0	188.6	189.2	189.8	190.3	190.7	191.2	191.6	191.8
110°	220.0	220.3	220.6	220.9	221.2	221.5	222.1	222.7	223.3	223.9	224.0



TEST NUMBER: P832162

CATALOG NUMBER: S123RDIP-S340D805U935-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	253.0	253.1	253.1	253.1	253.1	253.1	253.9	254.6	255.4	256.1	256.5
115°	287.9	288.0	287.7	287.4	287.1	286.8	286.9	287.1	287.2	287.4	287.4
117.5°	321.0	321.0	320.7	320.4	320.1	319.8	319.8	319.8	319.8	319.8	319.5
120°	355.7	355.7	355.0	354.2	353.5	352.7	352.6	352.4	352.3	352.1	351.9
122.5°	387.4	387.6	387.3	387.0	386.7	386.4	385.9	385.5	385.1	384.6	384.2
125°	420.5	420.6	420.3	420.0	419.7	419.4	418.8	418.2	417.6	417.0	416.4
127.5°	453.3	453.6	453.3	453.0	452.7	452.4	451.5	450.6	449.7	448.8	448.0
130°	485.4	485.8	485.4	484.9	484.5	484.0	483.4	482.8	482.2	481.6	480.8
132.5°	516.4	516.8	516.5	516.2	515.9	515.6	514.9	514.1	513.4	512.7	511.9
135°	546.8	547.2	547.1	546.9	546.8	546.6	546.0	545.4	544.8	544.2	543.8
137.5°	575.2	575.8	576.2	576.7	577.1	577.6	576.8	576.1	575.3	574.6	574.0
140°	605.5	605.9	606.1	606.2	606.4	606.5	606.4	606.2	606.1	605.9	605.3
142.5°	633.1	633.6	633.9	634.2	634.5	634.8	634.6	634.5	634.3	634.2	633.7
145°	660.2	660.6	661.0	661.5	661.9	662.4	662.2	662.1	661.9	661.8	661.4
147.5°	686.3	686.9	687.3	687.8	688.2	688.6	688.6	688.6	688.6	688.6	688.2
150°	711.4	711.7	712.0	712.3	712.6	712.9	712.9	712.9	712.9	712.9	712.4
152.5°	733.5	733.8	734.0	734.1	734.3	734.4	734.7	735.0	735.3	735.6	735.4
155°	754.6	754.7	754.8	755.0	755.1	755.3	755.9	756.5	757.1	757.7	757.5
157.5°	773.5	773.5	773.7	773.8	774.0	774.1	774.7	775.3	775.9	776.5	776.4
160°	791.1	791.0	791.0	791.0	791.0	791.0	791.7	792.5	793.2	794.0	794.0
162.5°	806.7	806.5	806.7	806.8	807.0	807.1	807.9	808.6	809.4	810.1	810.0
165°	820.1	819.9	819.9	819.9	819.9	819.9	820.8	821.7	822.6	823.5	823.4
167.5°	831.0	830.8	830.9	831.1	831.2	831.4	832.3	833.2	834.1	834.9	834.9
170°	840.4	840.1	840.1	840.1	840.1	840.1	841.2	842.2	843.3	844.3	844.3
172.5°	847.8	847.5	847.5	847.5	847.5	847.5	848.4	849.3	850.2	851.1	851.0
175°	852.5	852.2	852.2	852.2	852.2	852.2	853.1	854.0	854.9	855.8	855.7
177.5°	855.2	854.9	854.9	854.9	854.9	854.9	855.8	856.7	857.6	858.5	858.4
180°	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9	856.9

TEST NUMBER: P832162

CATALOG NUMBER: S123RDIP-S340D805U935-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	956.5	956.5	956.5	956.5
2.5°	849.8	847.9	847.1	846.3
5°	728.5	722.4	721.0	719.6
7.5°	625.3	622.8	614.3	605.9
10°	541.6	533.7	530.2	526.7
12.5°	471.6	464.3	463.2	462.0
15°	417.3	412.2	410.4	408.6
17.5°	381.6	378.1	375.9	373.7
20°	355.1	352.6	351.0	349.4
22.5°	334.9	333.0	331.8	330.6
25°	315.5	312.6	311.6	310.6
27.5°	297.1	294.5	293.5	292.6
30°	279.8	277.7	276.3	274.9
32.5°	261.0	258.4	257.7	256.9
35°	244.3	242.8	242.0	241.2
37.5°	226.7	224.7	223.5	222.4
40°	211.6	210.6	210.0	209.4
42.5°	196.3	194.5	194.3	194.1
45°	181.0	179.2	178.8	178.4
47.5°	166.7	165.1	164.9	164.7
50°	150.8	148.6	147.1	145.5
52.5°	132.6	130.6	129.2	127.8
55°	115.9	113.7	112.6	111.4
57.5°	103.3	102.4	101.8	101.2
60°	93.1	92.6	92.2	91.8
62.5°	83.7	83.1	83.1	83.1
65°	75.1	74.5	73.9	73.3
67.5°	63.9	62.7	62.6	62.4
70°	50.4	48.6	48.4	48.2
72.5°	39.4	39.2	38.8	38.4
75°	32.6	32.2	32.2	32.2
77.5°	26.3	25.9	25.9	25.9
80°	20.2	20.0	20.2	20.4
82.5°	14.9	14.9	14.7	14.5
85°	9.6	9.4	9.4	9.4
87.5°	4.7	4.7	4.7	4.7
90°	19.3	19.6	19.9	20.2
92.5°	29.8	29.5	29.2	28.9
95°	52.5	52.5	52.5	52.5
97.5°	75.8	75.7	75.5	75.4
100°	101.4	101.7	102.0	102.3
102.5°	130.4	130.2	130.1	129.9
105°	159.3	159.6	159.9	160.2
107.5°	191.6	191.5	191.3	191.2
110°	223.7	223.4	223.1	222.8



TEST NUMBER: P832162

CATALOG NUMBER: S123RDIP-S340D805U935-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	256.5	256.5	256.5	256.5
115°	287.2	287.1	286.9	286.8
117.5°	319.1	318.6	318.2	317.7
120°	351.6	351.3	351.0	350.7
122.5°	383.7	383.3	382.8	382.4
125°	415.8	415.2	414.6	414.0
127.5°	447.4	446.8	446.2	445.6
130°	479.7	478.7	477.6	476.6
132.5°	511.2	510.4	509.7	508.9
135°	543.5	543.2	542.9	542.6
137.5°	573.5	573.1	572.6	572.2
140°	604.3	603.2	602.2	601.1
142.5°	633.0	632.3	631.5	630.8
145°	660.8	660.2	659.6	659.0
147.5°	687.3	686.4	685.5	684.6
150°	711.5	710.6	709.7	708.8
152.5°	734.6	733.9	733.2	732.4
155°	756.4	755.4	754.3	753.3
157.5°	775.5	774.6	773.7	772.8
160°	793.4	792.8	792.2	791.6
162.5°	808.9	807.9	806.8	805.8
165°	822.4	821.3	820.3	819.2
167.5°	834.1	833.2	832.3	831.4
170°	843.3	842.2	841.2	840.1
172.5°	850.0	848.9	847.9	846.8
175°	854.7	853.6	852.6	851.6
177.5°	857.4	856.3	855.3	854.2
180°	856.9	856.9	856.9	856.9



TEST NUMBER: P832162

CATALOG NUMBER: S123RDIP-S340D805U935-4F0-1E-UDD-G1

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	7.23	7.94	8.32	9.01	10.49	11.89	12.60	12.98	13.68	15.16
	3H	8.44	9.07	9.54	10.16	11.65	13.38	14.02	14.48	15.10	16.60
	4H	8.82	9.42	9.92	10.51	12.01	13.87	14.47	14.97	15.56	17.06
	6H	9.09	9.64	10.21	10.74	12.25	14.17	14.72	15.29	15.82	17.33
	8H	9.18	9.70	10.29	10.81	12.31	14.25	14.77	15.37	15.88	17.39
	12H	9.22	9.72	10.35	10.82	12.35	14.28	14.77	15.40	15.88	17.40
4H	2H	7.94	8.54	9.05	9.62	11.12	11.87	12.47	12.99	13.56	15.06
	3H	9.30	9.79	10.41	10.91	12.42	13.52	14.02	14.64	15.14	16.65
	4H	9.75	10.20	10.87	11.31	12.84	14.12	14.58	15.25	15.69	17.22
	6H	10.11	10.50	11.24	11.63	13.15	14.56	14.95	15.68	16.07	17.60
	8H	10.23	10.60	11.36	11.72	13.26	14.68	15.05	15.81	16.17	17.71
	12H	10.30	10.63	11.45	11.76	13.31	14.74	15.07	15.89	16.20	17.75
8H	4H	10.05	10.42	11.18	11.54	13.08	14.08	14.45	15.21	15.57	17.11
	6H	10.51	10.81	11.66	11.98	13.51	14.57	14.87	15.72	16.04	17.57
	8H	10.71	10.97	11.86	12.11	13.67	14.76	15.02	15.92	16.17	17.72
	12H	10.84	11.07	12.00	12.21	13.80	14.87	15.10	16.03	16.24	17.83
12H	4H	10.06	10.39	11.20	11.52	13.07	14.03	14.36	15.17	15.49	17.03
	6H	10.57	10.83	11.73	11.98	13.53	14.55	14.81	15.70	15.95	17.51
	8H	10.78	11.01	11.94	12.15	13.75	14.74	14.97	15.90	16.11	17.70