

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: P832161

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

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832161  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S340D805U935-4F0-1E-UDD-G  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 805 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: -

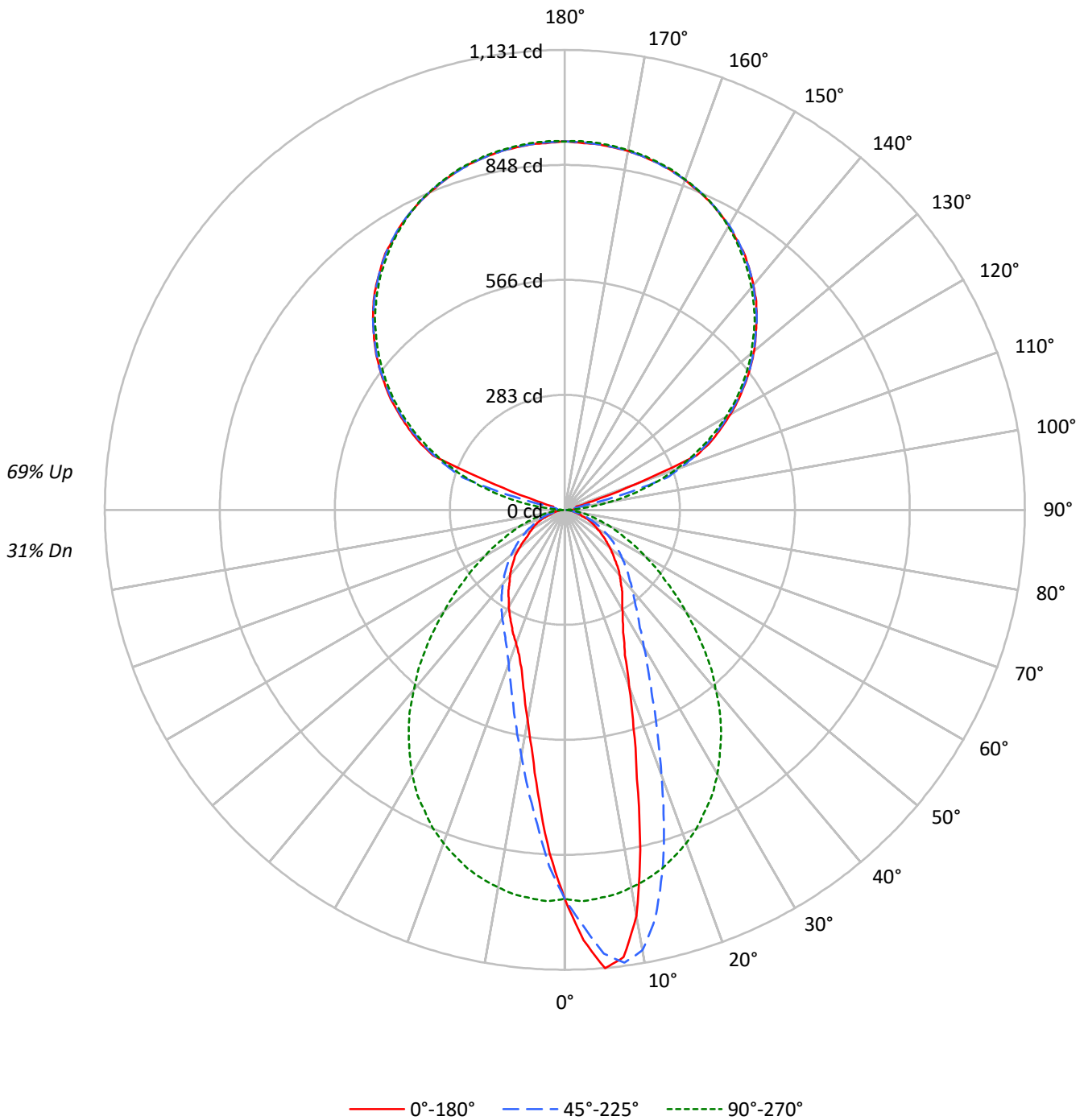
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4032.0 lumens  
Efficiency: N/A  
Efficacy: 122.2 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: 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
RCR																				
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31		
1	94	90	87	83	85	81	78	76	65	63	61	49	48	47	35	35	34	27		
2	86	79	74	69	77	72	67	63	57	54	51	44	42	40	32	30	29	24		
3	79	70	63	58	71	63	58	53	51	47	44	39	37	34	29	27	26	21		
4	72	62	55	49	65	57	50	45	46	41	38	35	32	30	26	24	23	19		
5	67	56	48	43	60	51	44	39	41	36	33	32	29	26	24	22	20	17		
6	61	50	43	37	55	46	39	34	37	32	29	29	26	23	22	20	18	15		
7	57	45	38	33	51	41	35	30	34	29	26	27	23	21	20	18	16	14		
8	53	41	34	29	48	38	31	27	31	26	23	25	21	19	19	16	15	12		
9	49	38	31	26	45	35	28	24	29	24	21	23	19	17	17	15	14	11		
10	46	35	28	23	42	32	26	22	26	22	19	21	18	16	16	14	13	11		

**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	2.2
10°-20°	201.7	5.0
20°-30°	231.5	5.7
30°-40°	228.2	5.7
40°-50°	201.2	5.0
50°-60°	154.8	3.8
60°-70°	101.8	2.5
70°-80°	49.4	1.2
80°-90°	14.3	0.4
90°-100°	31.9	0.8
100°-110°	154.4	3.8
110°-120°	378.5	9.4
120°-130°	480.5	11.9
130°-140°	513.3	12.7
140°-150°	480.0	11.9
150°-160°	387.2	9.6
160°-170°	249.9	6.2
170°-180°	86.1	2.1
0°-30°	520.4	12.9
0°-40°	748.5	18.6
0°-60°	1104.5	27.4
0°-90°	1270.0	31.5
90°-120°	564.9	14.0
90°-150°	2038.8	50.6
90°-180°	2762.0	68.5
0°-180°	4032.0	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	9
95°	26	21	41	21	26	21
105°	30	147	201	147	30	62
115°	396	386	376	386	396	372
125°	541	538	530	538	541	484
135°	667	667	660	667	667	515
145°	769	768	762	768	769	480
155°	838	839	839	839	838	387
165°	883	882	885	882	883	249
175°	903	903	906	903	903	86
180°	906	906	906	906	906	



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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	17.9	17.4	16.8	16.2	14.2
92.5°	22.9	22.7	22.6	22.4	22.3	21.7	20.6	19.6	18.5	17.5	16.2
95°	25.6	25.6	25.6	25.6	25.6	25.1	24.0	23.0	21.9	20.9	19.2
97.5°	27.6	27.4	27.3	27.1	27.0	26.3	25.1	23.9	22.7	21.5	20.2
100°	28.3	28.1	28.0	27.8	27.7	27.0	25.8	24.6	23.4	22.2	20.9
102.5°	28.9	28.6	28.3	28.0	27.7	30.1	35.0	39.9	44.9	49.8	75.8
105°	29.6	29.3	29.0	28.7	28.4	41.5	68.0	94.5	120.9	147.4	160.9
107.5°	70.0	89.6	109.2	128.8	148.4	169.7	192.7	215.8	238.8	261.8	259.6
110°	185.1	206.5	227.9	249.3	270.7	283.8	288.8	293.7	298.6	303.6	301.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	350.7	351.0	351.3	351.6	351.9	351.4	350.0	348.7	347.3	346.0	344.3
115°	395.8	395.2	394.6	394.0	393.4	392.4	390.9	389.4	387.9	386.4	385.0
117.5°	432.1	432.0	431.8	431.7	431.5	430.9	429.7	428.5	427.3	426.1	425.3
120°	469.8	469.8	469.8	469.8	469.8	469.2	468.0	466.8	465.7	464.5	464.0
122.5°	506.9	506.7	506.6	506.4	506.3	505.8	505.1	504.3	503.6	502.8	502.2
125°	541.2	540.9	540.6	540.3	540.0	539.7	539.4	539.1	538.8	538.5	537.9
127.5°	574.8	575.1	575.4	575.7	576.0	576.0	575.5	575.1	574.6	574.2	573.4
130°	607.2	607.5	607.8	608.1	608.4	608.2	607.6	607.0	606.4	605.8	605.2
132.5°	636.8	637.2	637.7	638.1	638.6	638.5	637.9	637.3	636.7	636.1	635.7
135°	667.1	667.5	668.0	668.4	668.9	668.9	668.4	668.0	667.5	667.1	666.5
137.5°	696.0	696.3	696.6	696.9	697.2	697.0	696.2	695.5	694.7	694.0	693.7
140°	721.6	721.9	722.2	722.5	722.8	722.6	722.0	721.4	720.8	720.2	719.8
142.5°	745.1	745.6	746.0	746.5	746.9	746.9	746.5	746.0	745.6	745.1	744.7
145°	769.4	769.4	769.4	769.4	769.4	769.2	768.9	768.6	768.3	768.0	767.7
147.5°	786.9	787.6	788.4	789.1	789.9	790.1	789.8	789.5	789.2	788.9	788.6
150°	807.1	807.5	808.0	808.4	808.9	808.9	808.6	808.3	808.0	807.7	807.4
152.5°	823.2	824.0	824.7	825.5	826.2	826.3	825.7	825.1	824.5	823.9	823.8
155°	838.0	838.9	839.8	840.7	841.6	841.7	841.0	840.2	839.5	838.7	838.6
157.5°	850.8	852.0	853.2	854.4	855.6	855.8	854.9	854.0	853.1	852.2	852.3
160°	862.9	864.0	865.0	866.1	867.1	867.2	866.3	865.4	864.5	863.6	863.8
162.5°	874.4	875.3	876.2	877.1	878.0	877.9	876.9	875.8	874.8	873.7	873.9
165°	883.1	884.2	885.2	886.3	887.3	887.3	886.1	884.9	883.7	882.5	882.6
167.5°	889.9	891.1	892.3	893.5	894.7	894.7	893.5	892.3	891.1	889.9	889.9
170°	895.9	897.1	898.3	899.5	900.7	900.7	899.5	898.3	897.1	895.9	895.9
172.5°	899.3	900.6	902.0	903.3	904.7	904.8	903.6	902.4	901.2	900.0	899.8
175°	902.7	903.9	905.1	906.2	907.4	907.5	906.5	905.4	904.4	903.3	903.2
177.5°	903.3	904.8	906.3	907.8	909.3	909.5	908.3	907.1	905.9	904.7	904.5
180°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0



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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°	14.8	13.5	12.1	11.9	12.8	13.7	14.6	15.5	14.6	13.7	12.8
95°	17.6	15.9	14.3	16.5	22.7	28.8	34.9	41.1	34.9	28.8	22.7
97.5°	36.8	44.4	52.1	58.0	62.2	66.3	70.5	74.7	70.5	66.3	62.2
100°	68.9	92.2	115.6	125.7	122.7	119.7	116.7	113.8	116.7	119.7	122.7
102.5°	101.9	127.9	153.9	166.0	164.0	162.1	160.1	158.2	160.1	162.1	164.0
105°	174.3	187.8	201.3	207.2	205.5	203.9	202.2	200.6	202.2	203.9	205.5
107.5°	257.4	255.1	252.9	251.1	249.7	248.4	247.0	245.7	247.0	248.4	249.7
110°	300.3	298.6	297.0	295.6	294.4	293.2	292.0	290.8	292.0	293.2	294.4





TEST NUMBER: P832161

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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	342.7	341.0	339.4	338.1	337.0	336.0	334.9	333.9	334.9	336.0	337.0
115°	383.7	382.3	381.0	379.9	379.0	378.1	377.2	376.3	377.2	378.1	379.0
117.5°	424.6	423.8	423.1	422.2	421.2	420.1	419.1	418.0	419.1	420.1	421.2
120°	463.6	463.1	462.7	461.8	460.4	459.1	457.7	456.4	457.7	459.1	460.4
122.5°	501.6	501.0	500.4	499.6	498.6	497.5	496.5	495.4	496.5	497.5	498.6
125°	537.3	536.7	536.1	535.2	534.0	532.8	531.6	530.4	531.6	532.8	534.0
127.5°	572.7	571.9	571.2	570.2	569.0	567.8	566.6	565.4	566.6	567.8	569.0
130°	604.6	604.0	603.4	602.5	601.3	600.1	598.9	597.7	598.9	600.1	601.3
132.5°	635.2	634.8	634.3	633.5	632.3	631.1	629.9	628.7	629.9	631.1	632.3
135°	665.9	665.3	664.7	663.9	663.0	662.1	661.2	660.3	661.2	662.1	663.0
137.5°	693.4	693.1	692.8	692.0	690.8	689.7	688.5	687.3	688.5	689.7	690.8
140°	719.3	718.9	718.4	717.8	716.9	716.0	715.1	714.2	715.1	716.0	716.9
142.5°	744.3	743.8	743.4	742.7	741.8	740.9	740.0	739.1	740.0	740.9	741.8
145°	767.4	767.1	766.8	766.2	765.1	764.1	763.0	762.0	763.0	764.1	765.1
147.5°	788.3	788.0	787.7	787.2	786.4	785.7	784.9	784.2	784.9	785.7	786.4
150°	807.1	806.9	806.6	806.2	805.7	805.3	804.8	804.4	804.8	805.3	805.7
152.5°	823.6	823.5	823.3	823.2	823.0	822.9	822.7	822.6	822.7	822.9	823.0
155°	838.4	838.3	838.1	838.2	838.5	838.8	839.1	839.4	839.1	838.8	838.5
157.5°	852.5	852.6	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8
160°	863.9	864.1	864.2	864.4	864.5	864.7	864.8	865.0	864.8	864.7	864.5
162.5°	874.0	874.2	874.3	874.6	875.1	875.5	876.0	876.4	876.0	875.5	875.1
165°	882.8	882.9	883.1	883.4	883.8	884.3	884.7	885.2	884.7	884.3	883.8
167.5°	889.9	889.9	889.9	890.2	890.8	891.4	892.0	892.6	892.0	891.4	890.8
170°	895.9	895.9	895.9	896.2	896.8	897.4	898.0	898.6	898.0	897.4	896.8
172.5°	899.7	899.5	899.4	899.7	900.4	901.2	901.9	902.7	901.9	901.2	900.4
175°	903.0	902.9	902.7	903.0	903.8	904.5	905.3	906.0	905.3	904.5	903.8
177.5°	904.4	904.2	904.1	904.4	905.1	905.9	906.6	907.4	906.6	905.9	905.1
180°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0



TEST NUMBER: P832161

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

**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	17.9	18.5	19.0
92.5°	11.9	12.1	13.5	14.8	16.2	17.5	18.5	19.6	20.6	21.7	22.3
95°	16.5	14.3	15.9	17.6	19.2	20.9	21.9	23.0	24.0	25.1	25.6
97.5°	58.0	52.1	44.4	36.8	29.2	21.5	22.7	23.9	25.1	26.3	27.0
100°	125.7	115.6	92.2	68.9	45.5	22.2	23.4	24.6	25.8	27.0	27.7
102.5°	166.0	153.9	127.9	101.9	75.8	49.8	44.9	39.9	35.0	30.1	27.7
105°	207.2	201.3	187.8	174.3	160.9	147.4	120.9	94.5	68.0	41.5	28.4
107.5°	251.1	252.9	255.1	257.4	259.6	261.8	238.8	215.8	192.7	169.7	148.4
110°	295.6	297.0	298.6	300.3	301.9	303.6	298.6	293.7	288.8	283.8	270.7



TEST NUMBER: P832161

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

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	338.1	339.4	341.0	342.7	344.3	346.0	347.3	348.7	350.0	351.4	351.9
115°	379.9	381.0	382.3	383.7	385.0	386.4	387.9	389.4	390.9	392.4	393.4
117.5°	422.2	423.1	423.8	424.6	425.3	426.1	427.3	428.5	429.7	430.9	431.5
120°	461.8	462.7	463.1	463.6	464.0	464.5	465.7	466.8	468.0	469.2	469.8
122.5°	499.6	500.4	501.0	501.6	502.2	502.8	503.6	504.3	505.1	505.8	506.3
125°	535.2	536.1	536.7	537.3	537.9	538.5	538.8	539.1	539.4	539.7	540.0
127.5°	570.2	571.2	571.9	572.7	573.4	574.2	574.6	575.1	575.5	576.0	576.0
130°	602.5	603.4	604.0	604.6	605.2	605.8	606.4	607.0	607.6	608.2	608.4
132.5°	633.5	634.3	634.8	635.2	635.7	636.1	636.7	637.3	637.9	638.5	638.6
135°	663.9	664.7	665.3	665.9	666.5	667.1	667.5	668.0	668.4	668.9	668.9
137.5°	692.0	692.8	693.1	693.4	693.7	694.0	694.7	695.5	696.2	697.0	697.2
140°	717.8	718.4	718.9	719.3	719.8	720.2	720.8	721.4	722.0	722.6	722.8
142.5°	742.7	743.4	743.8	744.3	744.7	745.1	745.6	746.0	746.5	746.9	746.9
145°	766.2	766.8	767.1	767.4	767.7	768.0	768.3	768.6	768.9	769.2	769.4
147.5°	787.2	787.7	788.0	788.3	788.6	788.9	789.2	789.5	789.8	790.1	789.9
150°	806.2	806.6	806.9	807.1	807.4	807.7	808.0	808.3	808.6	808.9	808.9
152.5°	823.2	823.3	823.5	823.6	823.8	823.9	824.5	825.1	825.7	826.3	826.2
155°	838.2	838.1	838.3	838.4	838.6	838.7	839.5	840.2	841.0	841.7	841.6
157.5°	852.8	852.8	852.6	852.5	852.3	852.2	853.1	854.0	854.9	855.8	855.6
160°	864.4	864.2	864.1	863.9	863.8	863.6	864.5	865.4	866.3	867.2	867.1
162.5°	874.6	874.3	874.2	874.0	873.9	873.7	874.8	875.8	876.9	877.9	878.0
165°	883.4	883.1	882.9	882.8	882.6	882.5	883.7	884.9	886.1	887.3	887.3
167.5°	890.2	889.9	889.9	889.9	889.9	889.9	891.1	892.3	893.5	894.7	894.7
170°	896.2	895.9	895.9	895.9	895.9	895.9	897.1	898.3	899.5	900.7	900.7
172.5°	899.7	899.4	899.5	899.7	899.8	900.0	901.2	902.4	903.6	904.8	904.7
175°	903.0	902.7	902.9	903.0	903.2	903.3	904.4	905.4	906.5	907.5	907.4
177.5°	904.4	904.1	904.2	904.4	904.5	904.7	905.9	907.1	908.3	909.5	909.3
180°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0

TEST NUMBER: P832161

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

**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°	22.4	22.6	22.7	22.9
95°	25.6	25.6	25.6	25.6
97.5°	27.1	27.3	27.4	27.6
100°	27.8	28.0	28.1	28.3
102.5°	28.0	28.3	28.6	28.9
105°	28.7	29.0	29.3	29.6
107.5°	128.8	109.2	89.6	70.0
110°	249.3	227.9	206.5	185.1



TEST NUMBER: P832161

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

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	351.6	351.3	351.0	350.7
115°	394.0	394.6	395.2	395.8
117.5°	431.7	431.8	432.0	432.1
120°	469.8	469.8	469.8	469.8
122.5°	506.4	506.6	506.7	506.9
125°	540.3	540.6	540.9	541.2
127.5°	575.7	575.4	575.1	574.8
130°	608.1	607.8	607.5	607.2
132.5°	638.1	637.7	637.2	636.8
135°	668.4	668.0	667.5	667.1
137.5°	696.9	696.6	696.3	696.0
140°	722.5	722.2	721.9	721.6
142.5°	746.5	746.0	745.6	745.1
145°	769.4	769.4	769.4	769.4
147.5°	789.1	788.4	787.6	786.9
150°	808.4	808.0	807.5	807.1
152.5°	825.5	824.7	824.0	823.2
155°	840.7	839.8	838.9	838.0
157.5°	854.4	853.2	852.0	850.8
160°	866.1	865.0	864.0	862.9
162.5°	877.1	876.2	875.3	874.4
165°	886.3	885.2	884.2	883.1
167.5°	893.5	892.3	891.1	889.9
170°	899.5	898.3	897.1	895.9
172.5°	903.3	902.0	900.6	899.3
175°	906.2	905.1	903.9	902.7
177.5°	907.8	906.3	904.8	903.3
180°	906.0	906.0	906.0	906.0



TEST NUMBER: P832161

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

**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	6.80	7.49	7.91	8.59	10.11	11.47	12.15	12.58	13.25	14.77
	3H	8.01	8.63	9.13	9.73	11.27	12.96	13.57	14.08	14.68	16.21
	4H	8.39	8.97	9.52	10.08	11.62	13.44	14.02	14.57	15.13	16.67
	6H	8.66	9.20	9.80	10.31	11.86	13.75	14.28	14.88	15.39	16.94
	8H	8.75	9.25	9.89	10.38	11.92	13.82	14.33	14.96	15.46	17.00
	12H	8.79	9.28	9.94	10.40	11.96	13.85	14.33	14.99	15.45	17.02
4H	2H	7.51	8.09	8.64	9.20	10.74	11.45	12.03	12.58	13.14	14.68
	3H	8.87	9.35	10.01	10.48	12.04	13.09	13.58	14.23	14.71	16.26
	4H	9.32	9.76	10.46	10.89	12.46	13.69	14.14	14.84	15.26	16.83
	6H	9.68	10.06	10.83	11.20	12.77	14.12	14.50	15.27	15.65	17.21
	8H	9.80	10.15	10.95	11.29	12.87	14.25	14.61	15.40	15.75	17.32
	12H	9.87	10.19	11.03	11.34	12.92	14.31	14.63	15.47	15.78	17.36
8H	4H	9.62	9.98	10.77	11.11	12.69	13.65	14.01	14.80	15.14	16.72
	6H	10.08	10.37	11.25	11.55	13.13	14.14	14.43	15.31	15.62	17.19
	8H	10.27	10.53	11.45	11.69	13.28	14.33	14.58	15.50	15.74	17.34
	12H	10.41	10.63	11.58	11.79	13.42	14.44	14.66	15.62	15.82	17.45
12H	4H	9.63	9.95	10.79	11.10	12.68	13.59	13.92	14.76	15.07	16.65
	6H	10.14	10.39	11.31	11.55	13.15	14.12	14.37	15.29	15.53	17.13
	8H	10.35	10.57	11.53	11.73	13.36	14.30	14.53	15.48	15.68	17.31