

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: P832166

Luminaire Tested: S123RDIP-S340D805U940-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832166  
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-S340D805U940-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

**Summary**

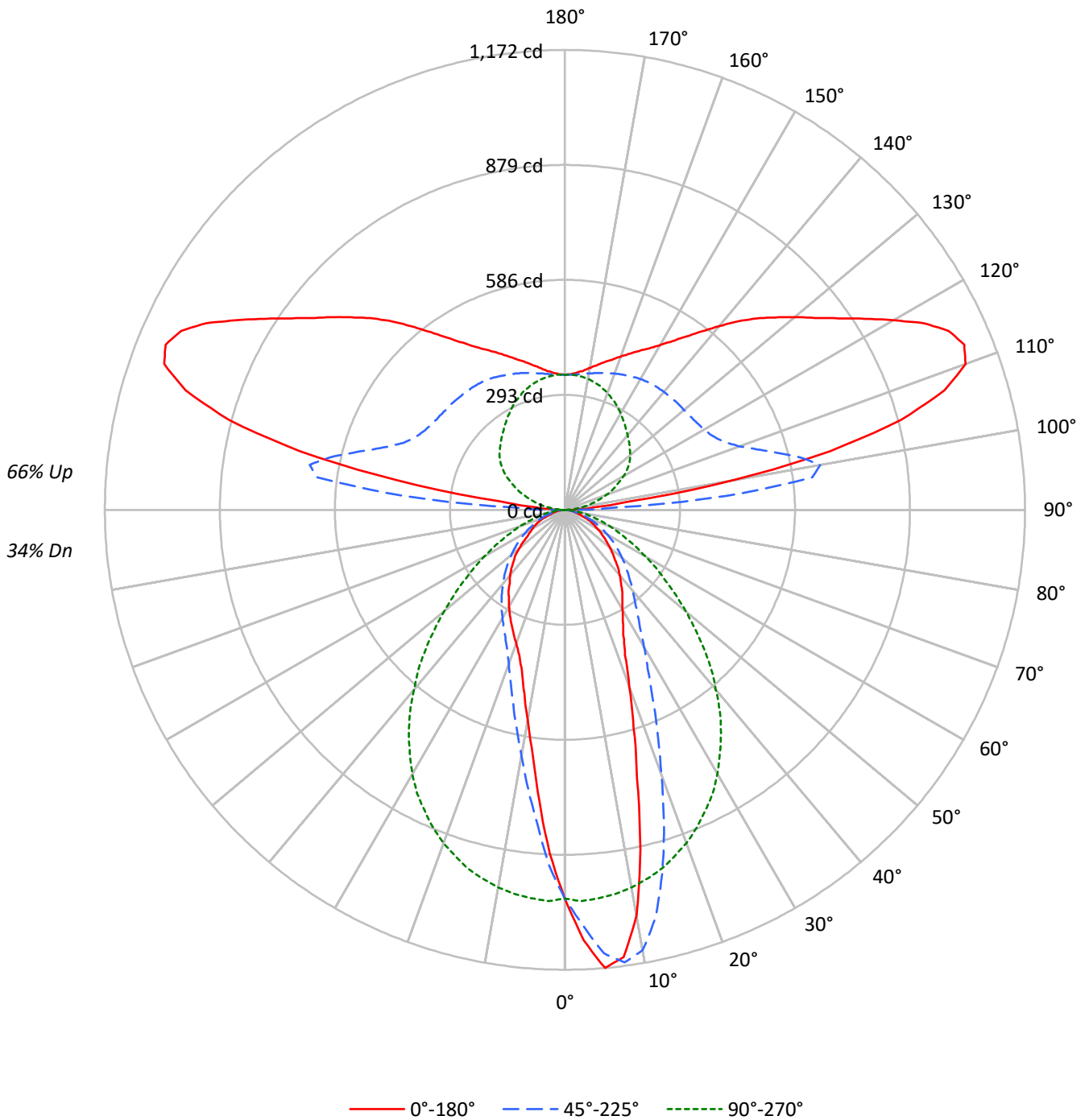
Lumens per Lamp: N/A  
Luminaire Lumens: 3905.9 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Indirect

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

TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

### Luminous Intensity Polar Plot





TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34				
1	95	91	87	84	85	82	79	76	66	64	62	51	50	48	37	36	36	29				
2	87	80	74	69	78	72	68	63	58	55	52	45	43	41	33	32	31	26				
3	79	71	64	58	71	64	58	54	52	48	44	41	38	36	30	28	27	22				
4	73	63	56	50	66	57	51	46	46	42	38	37	34	31	27	25	24	20				
5	67	56	49	43	60	51	45	40	42	37	34	33	30	27	25	23	21	18				
6	62	51	43	38	56	46	40	35	38	33	30	30	27	24	23	21	19	16				
7	57	46	38	33	52	42	36	31	35	30	26	28	24	22	21	19	17	14				
8	53	42	35	30	48	38	32	28	32	27	24	25	22	20	20	17	16	13				
9	50	38	31	26	45	35	29	25	29	25	21	24	20	18	18	16	14	12				
10	47	35	28	24	42	32	26	22	27	22	19	22	19	16	17	15	13	11				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	10663	10663	10663	10663	10663
5°	12661	12257	10730	8674	8053
10°	11471	12450	10676	6949	5962
15°	7899	10674	10564	5680	4716
20°	5495	8219	10352	4789	4145
25°	4187	6264	10043	4257	3821
30°	3644	5008	9657	3952	3539
35°	3347	4225	9110	3696	3282
40°	3053	3773	8396	3444	3048
45°	2757	3449	7623	3206	2813
50°	2503	3183	6713	2972	2524
55°	2263	2924	5838	2744	2164
60°	2028	2659	5072	2493	2045
65°	1872	2358	4365	2239	1936
70°	1520	2039	3808	2027	1574
75°	1335	1622	3227	1680	1385
80°	1209	1370	2641	1407	1308
85°	1099	1198	2001	1284	1198

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 8044 cd/sqm



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.3	2.3
10°-20°	208.9	5.3
20°-30°	239.7	6.1
30°-40°	236.3	6.0
40°-50°	208.4	5.3
50°-60°	160.3	4.1
60°-70°	105.4	2.7
70°-80°	51.2	1.3
80°-90°	14.8	0.4
90°-100°	186.9	4.8
100°-110°	547.1	14.0
110°-120°	534.3	13.7
120°-130°	425.5	10.9
130°-140°	335.7	8.6
140°-150°	250.4	6.4
150°-160°	174.6	4.5
160°-170°	102.6	2.6
170°-180°	33.4	0.9
0°-30°	539.0	13.8
0°-40°	775.3	19.8
0°-60°	1143.9	29.3
0°-90°	1315.3	33.7
90°-120°	1268.3	32.5
90°-150°	2280.0	58.4
90°-180°	2591.0	66.3
0°-180°	3905.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	991	991	991	991	991	
5°	1172	1134	993	803	745	107
15°	709	958	948	510	423	200
25°	352	527	846	358	322	167
35°	255	322	693	281	250	159
45°	181	227	501	211	185	141
55°	121	156	311	146	115	108
65°	74	93	171	88	76	72
75°	32	39	78	40	33	35
85°	9	10	16	10	10	9
90°	20	17	1	17	20	11
95°	81	413	24	413	81	131
105°	887	560	81	560	887	885
115°	1078	429	143	429	1078	1052
125°	850	400	199	400	850	770
135°	690	395	233	395	690	535
145°	539	390	266	390	539	342
155°	447	377	302	377	447	208
165°	390	361	330	361	390	111
175°	351	346	344	346	351	34
180°	344	344	344	344	344	



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6
2.5°	1097.9	1094.4	1090.9	1089.9	1088.9	1085.7	1082.4	1075.1	1067.8	1060.3	1052.8
5°	1171.8	1172.2	1172.6	1171.6	1170.6	1166.3	1162.0	1153.1	1144.2	1134.4	1124.7
7.5°	1149.0	1155.5	1162.0	1163.2	1164.5	1167.7	1171.0	1168.9	1166.9	1163.2	1159.6
10°	1049.5	1049.1	1048.7	1056.0	1063.3	1085.1	1106.8	1118.0	1129.1	1139.1	1149.0
12.5°	887.1	887.7	888.3	912.2	936.2	956.7	977.2	1005.7	1034.1	1064.8	1095.4
15°	708.8	718.7	728.7	750.0	771.3	802.2	833.0	871.2	909.4	957.9	1006.5
17.5°	582.0	586.3	590.6	611.1	631.6	660.8	690.1	733.3	776.6	839.1	901.7
20°	479.7	483.5	487.4	502.2	517.0	545.1	573.1	614.3	655.5	717.5	779.4
22.5°	400.5	408.0	415.5	425.5	435.4	455.7	476.0	518.1	560.1	616.6	673.0
25°	352.5	356.0	359.5	368.0	376.5	396.0	415.5	443.3	471.1	527.4	583.7
27.5°	320.1	321.1	322.1	328.4	334.7	347.3	359.9	385.6	411.4	457.7	504.0
30°	293.2	295.1	296.9	301.8	306.7	315.8	324.9	343.2	361.5	402.9	444.3
32.5°	272.5	273.5	274.6	278.6	282.7	289.4	296.1	310.5	324.9	356.6	388.3
35°	254.7	254.9	255.1	258.1	261.2	267.7	274.2	286.1	298.1	321.5	344.8
37.5°	234.4	235.8	237.2	239.4	241.7	247.4	253.0	262.8	272.5	291.8	311.1
40°	217.3	218.5	219.7	222.4	225.0	229.5	233.9	242.9	251.8	268.5	285.1
42.5°	200.2	201.0	201.9	204.5	207.1	212.6	218.1	225.2	232.3	246.1	259.9
45°	181.1	183.2	185.2	188.1	190.9	195.6	200.2	207.5	214.9	226.6	238.4
47.5°	165.3	166.3	167.3	169.8	172.2	177.9	183.6	190.1	196.6	207.5	218.5
50°	149.5	149.9	150.3	152.5	154.7	159.8	164.9	172.4	179.9	190.1	200.2
52.5°	134.4	135.5	136.5	138.7	140.9	144.4	147.8	155.6	163.3	173.2	183.2
55°	120.6	121.2	121.8	123.5	125.1	129.2	133.2	139.9	146.6	155.8	164.9
57.5°	107.6	108.4	109.3	110.5	111.7	115.3	119.0	124.9	130.8	139.9	149.1
60°	94.2	95.2	96.3	97.7	99.1	101.9	104.8	110.1	115.3	123.5	131.6
62.5°	84.5	84.7	84.9	86.1	87.3	89.4	91.4	95.7	99.9	108.0	116.2
65°	73.5	74.1	74.7	75.3	76.0	77.6	79.2	82.9	86.5	92.6	98.7
67.5°	62.1	62.8	63.4	64.4	65.4	66.8	68.2	70.7	73.1	78.8	84.5
70°	48.3	48.3	48.3	50.0	51.6	54.0	56.5	58.3	60.1	64.8	69.5
72.5°	39.4	39.6	39.8	40.0	40.2	41.6	43.1	46.1	49.1	52.0	54.8
75°	32.1	32.3	32.5	32.7	32.9	33.3	33.7	34.7	35.7	39.0	42.2
77.5°	25.6	25.8	26.0	26.2	26.4	26.8	27.2	27.6	28.0	29.2	30.5
80°	19.5	19.7	19.9	20.1	20.3	20.5	20.7	21.1	21.5	22.1	22.7
82.5°	14.2	14.2	14.2	14.2	14.2	14.6	15.0	15.0	15.0	15.4	15.8
85°	8.9	8.9	8.9	9.1	9.3	9.3	9.3	9.5	9.7	9.7	9.7
87.5°	4.1	3.9	3.7	3.9	4.1	4.1	4.1	4.3	4.5	4.5	4.5
90°	20.2	20.9	20.2	19.5	20.2	18.8	18.1	17.4	16.7	17.4	15.3
92.5°	36.9	38.3	37.6	40.4	41.8	46.7	53.7	69.0	96.9	129.7	143.6
95°	80.9	83.7	88.5	94.8	108.1	133.2	170.1	251.0	335.3	413.4	368.1
97.5°	165.9	173.6	190.3	216.8	263.5	343.0	435.0	576.5	657.4	635.8	474.8
100°	437.1	436.4	463.6	514.5	584.9	683.9	765.5	821.9	797.5	660.2	446.2
102.5°	692.3	712.5	734.1	771.8	822.6	876.3	915.4	903.5	804.5	614.9	404.4
105°	886.8	890.3	912.6	939.1	971.1	989.3	976.0	906.3	760.6	560.5	371.6
107.5°	1013.7	1021.3	1030.4	1042.9	1047.1	1028.3	973.9	864.5	697.9	512.4	347.9
110°	1086.2	1087.6	1089.0	1083.4	1063.9	1015.1	927.2	798.9	639.3	472.7	335.3



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1100.8	1100.1	1093.1	1072.9	1033.2	967.0	865.9	734.1	588.4	446.2	328.4
115°	1078.5	1075.0	1061.1	1030.4	978.1	902.1	799.6	678.3	549.4	428.8	327.7
117.5°	1029.7	1024.8	1003.9	969.7	915.4	836.6	742.5	635.1	523.6	416.9	328.4
120°	965.6	961.4	944.6	905.6	850.5	780.1	696.5	602.3	504.0	409.2	331.1
122.5°	905.6	900.0	881.2	847.0	799.6	735.5	659.5	576.5	488.0	404.4	336.0
125°	850.5	845.7	828.2	797.5	752.9	697.2	630.2	554.2	474.8	400.2	340.9
127.5°	803.1	798.9	782.9	756.4	716.0	664.4	603.0	534.0	462.2	398.1	346.5
130°	764.1	758.5	743.9	718.8	681.8	634.4	577.9	515.2	452.5	396.0	352.1
132.5°	725.7	722.3	709.7	684.6	650.4	605.8	554.2	497.8	443.4	395.3	356.2
135°	689.5	684.6	672.1	651.1	617.0	577.2	531.9	482.4	435.7	394.6	360.4
137.5°	651.1	647.0	636.5	614.9	585.6	550.1	509.6	467.8	428.8	393.2	363.2
140°	610.7	611.4	600.3	580.7	554.2	524.3	490.8	455.2	422.5	392.5	366.0
142.5°	573.1	573.8	564.0	547.3	525.7	500.6	472.7	443.4	416.9	391.1	368.1
145°	538.9	537.5	531.9	517.3	499.9	479.6	457.3	434.3	412.0	389.7	368.8
147.5°	509.6	508.9	503.3	492.9	478.9	464.3	445.5	426.7	407.1	387.6	368.8
150°	484.5	484.5	480.3	472.7	462.2	449.0	434.3	418.3	402.3	384.8	368.8
152.5°	463.6	463.6	461.5	454.5	446.9	436.4	423.9	410.6	396.7	381.3	366.7
155°	446.9	446.2	444.8	439.2	432.9	424.6	414.1	403.0	391.1	377.2	365.3
157.5°	430.8	430.8	429.4	425.3	419.7	412.7	404.4	394.6	384.8	373.7	363.2
160°	415.5	416.2	416.2	412.0	407.1	402.3	395.3	387.6	378.6	369.5	361.8
162.5°	401.6	402.3	402.3	398.8	396.0	391.8	385.5	379.3	372.3	365.3	359.0
165°	389.7	389.7	390.4	387.6	384.8	381.3	376.5	372.3	366.7	361.1	356.2
167.5°	377.9	377.9	378.6	376.5	375.1	372.3	369.5	366.0	361.1	356.9	353.5
170°	367.4	367.4	368.1	366.7	366.0	364.6	361.8	359.7	356.2	352.8	350.7
172.5°	357.6	358.3	359.7	358.3	358.3	357.6	355.6	354.2	351.4	349.3	348.6
175°	350.7	351.4	352.1	351.4	351.4	351.4	350.0	349.3	347.9	346.5	346.5
177.5°	345.8	345.8	347.2	346.5	347.2	347.2	346.5	345.8	345.1	344.4	345.1
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6
2.5°	1051.8	1050.7	1041.0	1031.2	1021.7	1012.2	1005.0	997.9	986.0	974.0	966.5
5°	1116.9	1109.2	1093.8	1078.4	1055.2	1032.1	1012.6	993.1	968.3	943.5	922.8
7.5°	1153.3	1147.0	1128.3	1109.6	1079.0	1048.3	1017.8	987.4	950.8	914.3	883.0
10°	1154.3	1159.6	1144.2	1128.7	1094.2	1059.7	1018.2	976.8	927.7	878.5	838.1
12.5°	1118.2	1140.9	1137.7	1134.4	1099.3	1064.1	1013.8	963.4	903.1	842.8	792.2
15°	1050.5	1094.6	1107.6	1120.6	1091.6	1062.5	1005.2	948.0	877.1	806.2	748.1
17.5°	963.4	1025.1	1059.5	1093.8	1072.7	1051.6	988.8	926.0	846.2	766.4	703.3
20°	860.2	941.1	994.9	1048.7	1041.0	1033.3	968.5	903.7	817.6	731.5	663.1
22.5°	758.3	843.6	917.9	992.3	1000.2	1008.1	942.7	877.3	783.1	688.8	619.2
25°	670.4	757.1	845.6	934.2	952.0	969.9	907.8	845.6	747.9	650.3	581.0
27.5°	586.5	668.9	766.4	863.9	896.4	928.9	872.0	815.2	713.4	611.7	542.6
30°	518.1	591.8	691.3	790.8	836.1	881.4	829.2	777.0	676.1	575.1	507.5
32.5°	454.3	520.3	620.2	720.1	772.7	825.3	780.2	735.2	638.1	541.0	474.2
35°	403.9	463.0	556.2	649.5	708.3	767.2	730.3	693.3	598.5	503.6	440.5
37.5°	360.7	410.2	497.7	585.3	647.8	710.4	679.5	648.6	559.5	470.3	410.6
40°	324.9	364.7	446.2	527.6	588.9	650.3	623.9	597.5	517.7	437.8	382.0
42.5°	294.3	328.6	401.7	474.8	531.1	587.3	569.8	552.4	480.1	407.8	356.0
45°	267.3	296.1	360.5	424.8	476.6	528.4	514.6	500.8	438.5	376.1	328.6
47.5°	243.3	268.1	325.5	383.0	429.5	476.0	463.2	450.4	398.8	347.3	304.0
50°	221.4	242.5	290.4	338.3	380.2	422.0	411.4	400.9	358.2	315.6	278.2
52.5°	200.6	218.1	261.2	304.2	337.9	371.6	363.5	355.4	322.5	289.6	255.7
55°	180.9	197.0	233.3	269.7	298.5	327.4	319.2	311.1	285.5	259.9	230.1
57.5°	163.1	177.1	206.5	236.0	258.9	281.9	278.0	274.2	252.8	231.5	206.9
60°	144.2	156.8	182.2	207.5	226.0	244.5	240.0	235.6	220.3	205.1	184.0
62.5°	127.3	138.5	158.8	179.1	194.1	209.2	205.9	202.7	191.1	179.5	162.1
65°	109.7	120.6	137.1	153.5	165.3	177.1	174.2	171.4	162.7	153.9	139.9
67.5°	93.6	102.8	117.0	131.2	139.1	147.0	145.4	143.8	137.1	130.4	119.4
70°	77.4	85.3	97.1	108.9	114.3	119.8	120.4	121.0	114.9	108.9	100.7
72.5°	61.1	67.4	78.4	89.4	93.6	97.9	97.7	97.5	93.8	90.2	82.9
75°	46.9	51.6	60.1	68.6	72.3	76.0	76.8	77.6	74.1	70.7	66.6
77.5°	33.7	37.0	43.5	50.0	54.0	58.1	58.5	58.9	57.3	55.6	51.8
80°	23.8	24.8	28.8	32.9	37.2	41.4	42.0	42.6	41.0	39.4	37.0
82.5°	16.4	17.1	18.5	19.9	23.4	26.8	27.6	28.4	27.6	26.8	24.2
85°	10.0	10.2	10.8	11.4	13.0	14.6	15.4	16.2	15.8	15.4	14.0
87.5°	4.5	4.5	4.7	4.9	5.3	5.7	6.7	7.7	7.1	6.5	5.9
90°	13.2	11.2	9.1	7.7	6.3	4.2	2.8	1.4	2.8	4.2	6.3
92.5°	107.4	70.4	48.1	35.6	28.6	22.3	15.3	10.5	15.3	22.3	28.6
95°	253.8	149.9	90.6	63.4	45.3	33.5	25.8	23.7	25.8	33.5	45.3
97.5°	282.3	161.7	103.2	73.2	55.1	44.6	38.3	37.6	38.3	44.6	55.1
100°	262.8	159.6	110.8	83.7	66.9	57.2	52.3	51.6	52.3	57.2	66.9
102.5°	246.1	162.4	119.9	95.5	80.9	71.8	67.6	66.2	67.6	71.8	80.9
105°	239.8	168.0	130.4	108.8	95.5	87.1	83.0	80.9	83.0	87.1	95.5
107.5°	238.4	177.1	143.6	123.4	110.8	102.5	98.3	96.2	98.3	102.5	110.8
110°	241.9	188.9	157.6	138.0	126.2	118.5	115.0	112.9	115.0	118.5	126.2





TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	248.9	200.8	172.2	153.4	141.5	133.9	130.4	128.3	130.4	133.9	141.5
115°	256.6	214.0	187.5	168.7	156.9	149.9	145.7	142.9	145.7	149.9	156.9
117.5°	266.3	228.0	201.5	184.0	170.8	164.5	161.0	157.6	161.0	164.5	170.8
120°	277.5	241.2	216.1	198.7	185.4	178.5	175.0	172.9	175.0	178.5	185.4
122.5°	287.9	255.2	230.8	211.9	199.4	191.7	188.2	186.1	188.2	191.7	199.4
125°	299.1	268.4	244.0	225.2	211.9	204.3	200.1	198.7	200.1	204.3	211.9
127.5°	308.1	280.3	256.6	237.7	223.1	215.4	210.5	208.4	210.5	215.4	223.1
130°	317.2	290.7	267.7	248.9	234.2	225.9	219.6	217.5	219.6	225.9	234.2
132.5°	325.6	299.8	277.5	259.3	244.7	234.2	227.3	224.5	227.3	234.2	244.7
135°	332.5	308.8	287.2	268.4	253.8	243.3	235.6	232.9	235.6	243.3	253.8
137.5°	338.1	315.1	294.2	276.8	262.1	251.0	243.3	240.5	243.3	251.0	262.1
140°	342.3	321.4	301.2	283.7	269.8	258.6	251.7	248.2	251.7	258.6	269.8
142.5°	346.5	326.3	306.7	290.7	276.8	267.0	259.3	256.6	259.3	267.0	276.8
145°	349.3	330.5	312.3	296.3	284.4	274.0	267.7	265.6	267.7	274.0	284.4
147.5°	351.4	333.9	317.2	303.3	291.4	282.3	276.1	274.7	276.1	282.3	291.4
150°	352.1	337.4	321.4	308.8	299.1	290.0	284.4	283.7	284.4	290.0	299.1
152.5°	353.5	339.5	326.3	314.4	306.1	298.4	292.8	292.8	292.8	298.4	306.1
155°	353.5	342.3	330.5	320.7	313.0	306.1	301.9	301.9	301.9	306.1	313.0
157.5°	354.2	343.7	333.9	326.3	319.3	313.0	309.5	308.8	309.5	313.0	319.3
160°	354.2	345.8	337.4	330.5	325.6	320.0	317.2	317.2	317.2	320.0	325.6
162.5°	353.5	346.5	339.5	333.9	329.8	325.6	323.5	323.5	323.5	325.6	329.8
165°	352.1	347.2	341.6	336.7	333.9	330.5	329.1	329.8	329.1	330.5	333.9
167.5°	351.4	347.2	343.0	339.5	337.4	334.6	333.9	334.6	333.9	334.6	337.4
170°	349.3	346.5	343.0	341.6	340.2	338.1	337.4	338.8	337.4	338.1	340.2
172.5°	348.6	346.5	343.7	343.0	342.3	340.9	340.9	341.6	340.9	340.9	342.3
175°	347.2	345.8	344.4	343.7	343.7	342.3	343.0	343.7	343.0	342.3	343.7
177.5°	346.5	345.1	344.4	344.4	344.4	343.7	344.4	345.1	344.4	343.7	344.4
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6	990.6
2.5°	958.9	947.4	935.8	927.5	919.1	908.8	898.4	898.0	897.6	889.9	882.2
5°	902.1	882.0	861.9	842.2	822.5	802.8	783.1	778.6	774.1	767.4	760.7
7.5°	851.7	819.6	787.5	762.4	737.2	717.5	697.8	684.4	671.0	660.6	650.3
10°	797.7	757.9	718.1	687.6	657.2	635.8	614.5	599.1	583.7	576.3	569.0
12.5°	741.6	698.4	655.1	625.3	595.4	569.8	544.3	530.2	516.2	506.1	495.9
15°	690.1	643.6	597.1	565.4	533.7	509.7	485.8	471.8	457.7	447.6	437.4
17.5°	640.1	593.2	546.3	514.2	482.1	460.4	438.7	425.0	411.4	405.1	398.8
20°	594.6	547.3	500.0	469.7	439.5	418.1	396.8	389.5	382.2	376.3	370.4
22.5°	549.5	504.0	458.6	429.5	400.5	385.0	369.6	363.7	357.8	353.4	348.9
25°	511.8	466.5	421.2	395.8	370.4	358.4	346.5	342.6	338.7	334.3	329.8
27.5°	473.6	430.5	387.5	367.2	346.9	337.1	327.4	322.5	317.6	314.0	310.3
30°	439.9	400.1	360.3	343.4	326.6	318.0	309.5	304.2	298.9	295.5	292.0
32.5°	407.4	372.0	336.7	322.3	307.9	299.5	291.2	286.1	281.1	277.0	272.9
35°	377.3	346.7	316.0	302.8	289.6	281.3	272.9	267.9	262.8	258.7	254.7
37.5°	350.9	323.1	295.3	282.9	270.5	263.2	255.9	250.6	245.3	241.1	236.8
40°	326.1	301.6	277.0	265.0	253.0	245.1	237.2	232.5	227.9	224.0	220.1
42.5°	304.2	281.7	259.1	247.4	235.6	228.1	220.5	215.1	209.6	207.3	205.1
45°	281.1	261.2	241.3	229.9	218.5	210.6	202.7	198.0	193.3	191.3	189.3
47.5°	260.8	242.3	223.8	212.6	201.5	194.3	187.2	183.6	179.9	177.1	174.2
50°	240.9	223.0	205.1	194.3	183.6	177.5	171.4	166.9	162.5	160.4	158.4
52.5°	221.8	205.5	189.3	178.3	167.3	161.4	155.6	151.7	147.8	143.6	139.3
55°	200.2	186.0	171.8	162.1	152.3	146.2	140.1	135.7	131.2	126.7	122.3
57.5°	182.4	168.4	154.3	145.6	136.9	131.0	125.1	120.2	115.3	111.7	108.0
60°	162.9	150.7	138.5	130.0	121.4	115.8	110.1	105.4	100.7	98.9	97.1
62.5°	144.6	133.2	121.8	114.3	106.8	101.3	95.9	92.8	89.8	88.5	87.3
65°	125.9	116.2	106.4	99.5	92.6	87.9	83.3	81.8	80.4	79.4	78.4
67.5°	108.4	100.1	91.8	85.7	79.6	76.4	73.1	71.5	69.9	68.6	67.4
70°	92.6	85.3	78.0	72.7	67.4	64.4	61.3	59.9	58.5	56.3	54.0
72.5°	75.5	69.9	64.2	60.1	56.1	53.4	50.8	47.9	45.1	43.1	41.0
75°	62.5	56.9	51.2	47.3	43.5	40.4	37.4	36.4	35.3	34.7	34.1
77.5°	47.9	43.1	38.2	35.1	32.1	30.7	29.2	28.6	28.0	27.8	27.6
80°	34.5	30.5	26.4	24.8	23.2	22.7	22.3	21.9	21.5	21.3	21.1
82.5°	21.5	19.5	17.5	17.1	16.7	16.4	16.2	16.0	15.8	15.6	15.4
85°	12.6	11.8	11.0	10.8	10.6	10.4	10.2	10.2	10.2	10.2	10.2
87.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.1	4.9
90°	7.7	9.1	11.2	13.2	15.3	17.4	16.7	17.4	18.1	18.8	20.2
92.5°	35.6	48.1	70.4	107.4	143.6	129.7	96.9	69.0	53.7	46.7	41.8
95°	63.4	90.6	149.9	253.8	368.1	413.4	335.3	251.0	170.1	133.2	108.1
97.5°	73.2	103.2	161.7	282.3	474.8	635.8	657.4	576.5	435.0	343.0	263.5
100°	83.7	110.8	159.6	262.8	446.2	660.2	797.5	821.9	765.5	683.9	584.9
102.5°	95.5	119.9	162.4	246.1	404.4	614.9	804.5	903.5	915.4	876.3	822.6
105°	108.8	130.4	168.0	239.8	371.6	560.5	760.6	906.3	976.0	989.3	971.1
107.5°	123.4	143.6	177.1	238.4	347.9	512.4	697.9	864.5	973.9	1028.3	1047.1
110°	138.0	157.6	188.9	241.9	335.3	472.7	639.3	798.9	927.2	1015.1	1063.9



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	153.4	172.2	200.8	248.9	328.4	446.2	588.4	734.1	865.9	967.0	1033.2
115°	168.7	187.5	214.0	256.6	327.7	428.8	549.4	678.3	799.6	902.1	978.1
117.5°	184.0	201.5	228.0	266.3	328.4	416.9	523.6	635.1	742.5	836.6	915.4
120°	198.7	216.1	241.2	277.5	331.1	409.2	504.0	602.3	696.5	780.1	850.5
122.5°	211.9	230.8	255.2	287.9	336.0	404.4	488.0	576.5	659.5	735.5	799.6
125°	225.2	244.0	268.4	299.1	340.9	400.2	474.8	554.2	630.2	697.2	752.9
127.5°	237.7	256.6	280.3	308.1	346.5	398.1	462.2	534.0	603.0	664.4	716.0
130°	248.9	267.7	290.7	317.2	352.1	396.0	452.5	515.2	577.9	634.4	681.8
132.5°	259.3	277.5	299.8	325.6	356.2	395.3	443.4	497.8	554.2	605.8	650.4
135°	268.4	287.2	308.8	332.5	360.4	394.6	435.7	482.4	531.9	577.2	617.0
137.5°	276.8	294.2	315.1	338.1	363.2	393.2	428.8	467.8	509.6	550.1	585.6
140°	283.7	301.2	321.4	342.3	366.0	392.5	422.5	455.2	490.8	524.3	554.2
142.5°	290.7	306.7	326.3	346.5	368.1	391.1	416.9	443.4	472.7	500.6	525.7
145°	296.3	312.3	330.5	349.3	368.8	389.7	412.0	434.3	457.3	479.6	499.9
147.5°	303.3	317.2	333.9	351.4	368.8	387.6	407.1	426.7	445.5	464.3	478.9
150°	308.8	321.4	337.4	352.1	368.8	384.8	402.3	418.3	434.3	449.0	462.2
152.5°	314.4	326.3	339.5	353.5	366.7	381.3	396.7	410.6	423.9	436.4	446.9
155°	320.7	330.5	342.3	353.5	365.3	377.2	391.1	403.0	414.1	424.6	432.9
157.5°	326.3	333.9	343.7	354.2	363.2	373.7	384.8	394.6	404.4	412.7	419.7
160°	330.5	337.4	345.8	354.2	361.8	369.5	378.6	387.6	395.3	402.3	407.1
162.5°	333.9	339.5	346.5	353.5	359.0	365.3	372.3	379.3	385.5	391.8	396.0
165°	336.7	341.6	347.2	352.1	356.2	361.1	366.7	372.3	376.5	381.3	384.8
167.5°	339.5	343.0	347.2	351.4	353.5	356.9	361.1	366.0	369.5	372.3	375.1
170°	341.6	343.0	346.5	349.3	350.7	352.8	356.2	359.7	361.8	364.6	366.0
172.5°	343.0	343.7	346.5	348.6	348.6	349.3	351.4	354.2	355.6	357.6	358.3
175°	343.7	344.4	345.8	347.2	346.5	346.5	347.9	349.3	350.0	351.4	351.4
177.5°	344.4	344.4	345.1	346.5	345.1	344.4	345.1	345.8	346.5	347.2	347.2
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	990.6	990.6	990.6	990.6
2.5°	880.2	878.1	877.3	876.5
5°	754.4	748.1	746.7	745.3
7.5°	647.6	645.0	636.3	627.5
10°	560.9	552.8	549.1	545.5
12.5°	488.4	480.9	479.7	478.5
15°	432.2	426.9	425.0	423.2
17.5°	395.2	391.5	389.3	387.1
20°	367.8	365.1	363.5	361.9
22.5°	346.9	344.8	343.6	342.4
25°	326.8	323.7	322.7	321.7
27.5°	307.7	305.0	304.0	303.0
30°	289.8	287.6	286.1	284.7
32.5°	270.3	267.7	266.8	266.0
35°	253.0	251.4	250.6	249.8
37.5°	234.8	232.7	231.5	230.3
40°	219.1	218.1	217.5	216.9
42.5°	203.3	201.5	201.3	201.0
45°	187.4	185.6	185.2	184.8
47.5°	172.6	171.0	170.8	170.6
50°	156.2	153.9	152.3	150.7
52.5°	137.3	135.3	133.8	132.4
55°	120.0	117.8	116.6	115.3
57.5°	107.0	106.0	105.4	104.8
60°	96.5	95.9	95.4	95.0
62.5°	86.7	86.1	86.1	86.1
65°	77.8	77.2	76.6	76.0
67.5°	66.2	65.0	64.8	64.6
70°	52.2	50.4	50.2	50.0
72.5°	40.8	40.6	40.2	39.8
75°	33.7	33.3	33.3	33.3
77.5°	27.2	26.8	26.8	26.8
80°	20.9	20.7	20.9	21.1
82.5°	15.4	15.4	15.2	15.0
85°	10.0	9.7	9.7	9.7
87.5°	4.9	4.9	4.9	4.9
90°	19.5	20.2	20.9	20.2
92.5°	40.4	37.6	38.3	36.9
95°	94.8	88.5	83.7	80.9
97.5°	216.8	190.3	173.6	165.9
100°	514.5	463.6	436.4	437.1
102.5°	771.8	734.1	712.5	692.3
105°	939.1	912.6	890.3	886.8
107.5°	1042.9	1030.4	1021.3	1013.7
110°	1083.4	1089.0	1087.6	1086.2



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	1072.9	1093.1	1100.1	1100.8
115°	1030.4	1061.1	1075.0	1078.5
117.5°	969.7	1003.9	1024.8	1029.7
120°	905.6	944.6	961.4	965.6
122.5°	847.0	881.2	900.0	905.6
125°	797.5	828.2	845.7	850.5
127.5°	756.4	782.9	798.9	803.1
130°	718.8	743.9	758.5	764.1
132.5°	684.6	709.7	722.3	725.7
135°	651.1	672.1	684.6	689.5
137.5°	614.9	636.5	647.0	651.1
140°	580.7	600.3	611.4	610.7
142.5°	547.3	564.0	573.8	573.1
145°	517.3	531.9	537.5	538.9
147.5°	492.9	503.3	508.9	509.6
150°	472.7	480.3	484.5	484.5
152.5°	454.5	461.5	463.6	463.6
155°	439.2	444.8	446.2	446.9
157.5°	425.3	429.4	430.8	430.8
160°	412.0	416.2	416.2	415.5
162.5°	398.8	402.3	402.3	401.6
165°	387.6	390.4	389.7	389.7
167.5°	376.5	378.6	377.9	377.9
170°	366.7	368.1	367.4	367.4
172.5°	358.3	359.7	358.3	357.6
175°	351.4	352.1	351.4	350.7
177.5°	346.5	347.2	345.8	345.8
180°	344.4	344.4	344.4	344.4



TEST NUMBER: P832166

CATALOG NUMBER: S123RDIP-S340D805U940-4F0-1E-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	7.21	7.91	8.30	8.99	10.48	11.87	12.57	12.97	13.66	15.15
	3H	8.42	9.04	9.52	10.14	11.65	13.36	13.98	14.46	15.08	16.59
	4H	8.80	9.39	9.91	10.48	12.00	13.84	14.44	14.96	15.53	17.05
	6H	9.07	9.61	10.19	10.71	12.24	14.15	14.69	15.27	15.79	17.32
	8H	9.15	9.67	10.28	10.79	12.30	14.22	14.74	15.35	15.86	17.37
	12H	9.20	9.69	10.33	10.80	12.34	14.25	14.74	15.38	15.85	17.39
4H	2H	7.91	8.51	9.04	9.60	11.12	11.85	12.44	12.97	13.54	15.05
	3H	9.27	9.77	10.40	10.89	12.41	13.50	13.99	14.62	15.11	16.64
	4H	9.72	10.18	10.85	11.29	12.83	14.10	14.55	15.23	15.66	17.21
	6H	10.08	10.47	11.22	11.61	13.14	14.53	14.92	15.67	16.05	17.59
	8H	10.21	10.57	11.34	11.69	13.25	14.66	15.02	15.79	16.15	17.70
	12H	10.28	10.60	11.43	11.74	13.30	14.71	15.04	15.87	16.18	17.74
8H	4H	10.03	10.39	11.16	11.52	13.07	14.06	14.42	15.19	15.54	17.10
	6H	10.49	10.78	11.64	11.95	13.50	14.55	14.85	15.70	16.02	17.57
	8H	10.68	10.94	11.84	12.09	13.66	14.73	14.99	15.90	16.14	17.71
	12H	10.81	11.04	11.98	12.19	13.79	14.84	15.07	16.01	16.22	17.82
12H	4H	10.03	10.36	11.19	11.50	13.06	14.00	14.33	15.15	15.47	17.02
	6H	10.55	10.81	11.71	11.95	13.53	14.52	14.78	15.68	15.93	17.50
	8H	10.76	10.99	11.92	12.13	13.74	14.71	14.94	15.88	16.08	17.69