

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: P832128

Luminaire Tested: S123RDIP-S340D585U927-4F0-1E-UDD-G

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832128
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-S340D585U927-4F0-1E-UDD-G
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: -

Summary

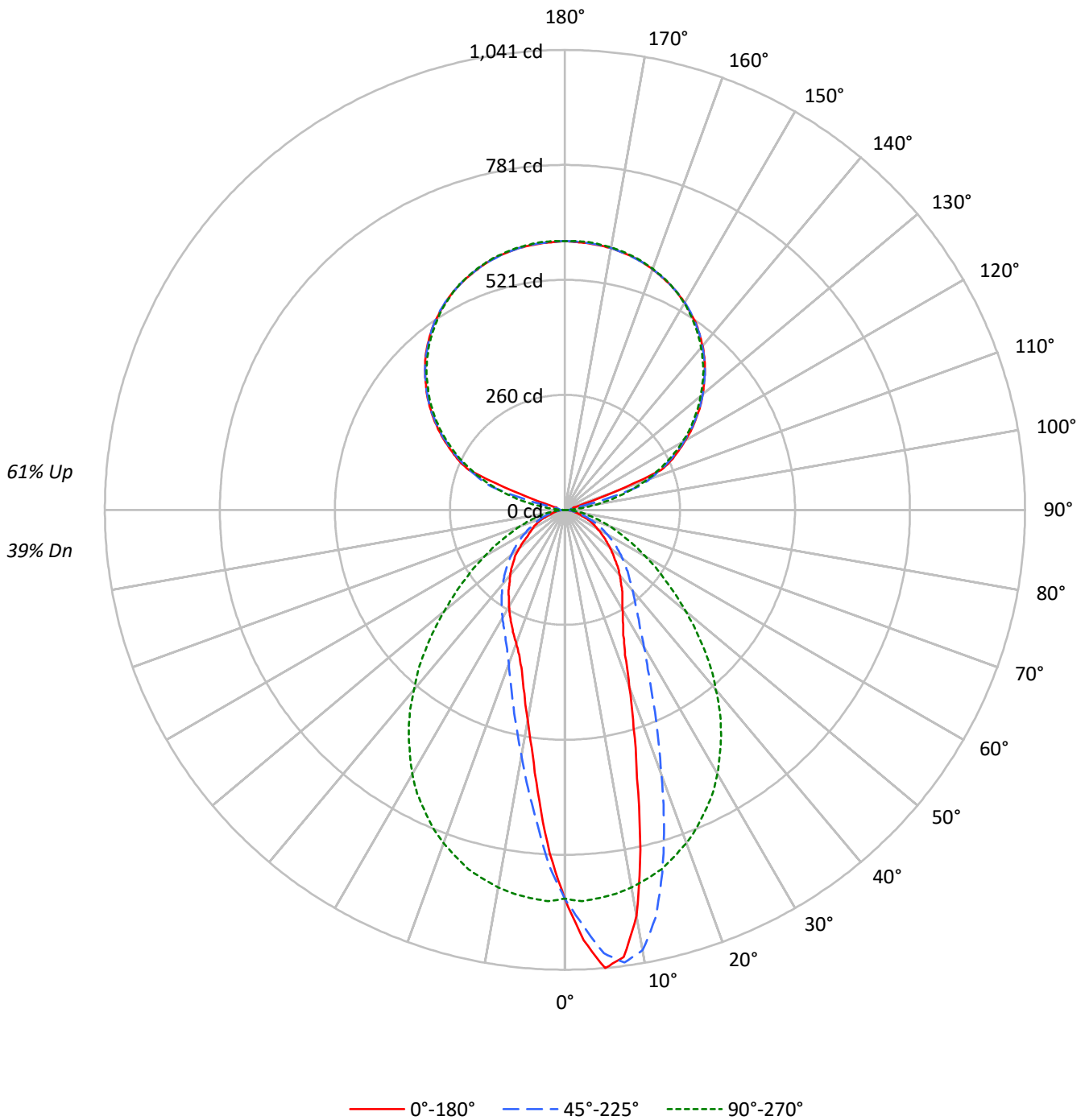
Lumens per Lamp: N/A
Luminaire Lumens: 3022.0 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				
1	96	92	88	85	87	84	81	78	68	66	64	54	53	52	41	40	40	34				
2	88	81	75	70	80	74	69	65	61	57	54	48	46	44	37	36	34	29				
3	81	72	65	59	73	66	60	55	54	50	46	43	41	38	34	32	30	26				
4	74	64	57	51	67	59	52	47	49	44	40	39	36	33	30	28	27	23				
5	68	57	50	44	62	53	46	41	44	39	35	36	32	29	28	26	24	20				
6	63	52	44	39	57	48	41	36	40	35	31	32	29	26	26	23	21	18				
7	58	47	39	34	53	43	37	32	36	31	28	30	26	23	24	21	19	17				
8	54	43	35	30	50	40	33	29	33	28	25	27	24	21	22	19	18	15				
9	51	39	32	27	46	36	30	26	31	26	22	25	22	19	20	18	16	14				
10	48	36	29	25	43	33	27	23	28	24	20	24	20	18	19	17	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9473	9473	9473	9473	9473
5°	11248	10889	9532	7706	7154
10°	10191	11060	9485	6174	5297
15°	7016	9483	9385	5046	4190
20°	4881	7301	9196	4255	3683
25°	3720	5564	8922	3782	3394
30°	3238	4448	8580	3511	3143
35°	2972	3753	8093	3284	2916
40°	2712	3351	7458	3060	2708
45°	2449	3064	6772	2848	2500
50°	2224	2828	5963	2641	2242
55°	2012	2597	5187	2438	1924
60°	1802	2362	4506	2213	1817
65°	1663	2096	3879	1989	1719
70°	1350	1813	3383	1800	1397
75°	1185	1439	2865	1493	1231
80°	1072	1221	2349	1252	1165
85°	976	1074	1778	1136	1074

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 7145 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	2.7
10°-20°	185.6	6.1
20°-30°	213.0	7.0
30°-40°	209.9	6.9
40°-50°	185.1	6.1
50°-60°	142.4	4.7
60°-70°	93.6	3.1
70°-80°	45.5	1.5
80°-90°	12.7	0.4
90°-100°	21.4	0.7
100°-110°	103.7	3.4
110°-120°	254.1	8.4
120°-130°	322.6	10.7
130°-140°	344.6	11.4
140°-150°	322.2	10.7
150°-160°	259.9	8.6
160°-170°	167.7	5.6
170°-180°	57.8	1.9
0°-30°	478.8	15.8
0°-40°	688.7	22.8
0°-60°	1016.3	33.6
0°-90°	1168.0	38.7
90°-120°	379.2	12.5
90°-150°	1368.5	45.3
90°-180°	1854.0	61.4
0°-180°	3022.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	880	880	880	880	880	
5°	1041	1008	882	713	662	95
15°	630	851	842	453	376	178
25°	313	468	751	318	286	148
35°	226	286	616	250	222	141
45°	161	201	445	187	164	125
55°	107	138	276	130	102	96
65°	65	82	152	78	68	64
75°	28	35	69	36	30	31
85°	8	9	14	9	9	8
90°	14	11	0	11	14	6
95°	17	14	28	14	17	14
105°	20	99	135	99	20	41
115°	266	259	253	259	266	250
125°	363	362	356	362	363	325
135°	448	448	443	448	448	345
145°	516	516	512	516	516	322
155°	562	563	563	563	562	259
165°	593	592	594	592	593	167
175°	606	606	608	606	606	58
180°	608	608	608	608	608	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	975.3	972.2	969.2	968.3	967.4	964.5	961.6	955.1	948.6	941.9	935.3
5°	1041.0	1041.3	1041.7	1040.8	1039.9	1036.1	1032.3	1024.4	1016.4	1007.8	999.1
7.5°	1020.8	1026.6	1032.3	1033.4	1034.5	1037.4	1040.3	1038.5	1036.7	1033.4	1030.2
10°	932.4	932.0	931.7	938.1	944.6	963.9	983.3	993.2	1003.1	1011.9	1020.8
12.5°	788.0	788.6	789.1	810.4	831.7	849.9	868.1	893.4	918.7	945.9	973.1
15°	629.6	638.5	647.3	666.3	685.2	712.6	740.1	774.0	807.9	851.0	894.1
17.5°	517.1	520.9	524.6	542.9	561.1	587.1	613.0	651.5	689.9	745.5	801.0
20°	426.1	429.6	433.0	446.2	459.3	484.2	509.1	545.8	582.4	637.4	692.4
22.5°	355.8	362.5	369.1	378.0	386.8	404.8	422.9	460.2	497.6	547.7	597.9
25°	313.2	316.3	319.3	326.9	334.5	351.8	369.1	393.8	418.6	468.5	518.5
27.5°	284.3	285.2	286.1	291.7	297.3	308.5	319.7	342.6	365.5	406.7	447.8
30°	260.5	262.1	263.8	268.1	272.4	280.5	288.7	304.9	321.1	357.9	394.7
32.5°	242.1	243.0	243.9	247.5	251.1	257.1	263.0	275.9	288.7	316.8	345.0
35°	226.2	226.4	226.6	229.3	232.0	237.8	243.6	254.2	264.8	285.6	306.3
37.5°	208.2	209.5	210.7	212.7	214.7	219.7	224.8	233.5	242.1	259.3	276.4
40°	193.0	194.1	195.2	197.6	199.9	203.9	207.8	215.8	223.7	238.5	253.3
42.5°	177.9	178.6	179.3	181.7	184.0	188.9	193.8	200.1	206.4	218.7	230.9
45°	160.9	162.7	164.5	167.1	169.6	173.7	177.9	184.4	190.9	201.3	211.8
47.5°	146.9	147.8	148.7	150.8	153.0	158.0	163.1	168.9	174.6	184.4	194.1
50°	132.8	133.1	133.5	135.5	137.5	142.0	146.5	153.2	159.8	168.9	177.9
52.5°	119.4	120.3	121.2	123.2	125.2	128.3	131.3	138.2	145.1	153.9	162.7
55°	107.2	107.7	108.2	109.7	111.1	114.7	118.4	124.3	130.3	138.4	146.5
57.5°	95.6	96.3	97.1	98.1	99.2	102.5	105.7	111.0	116.2	124.3	132.4
60°	83.7	84.6	85.5	86.8	88.0	90.6	93.1	97.8	102.5	109.7	116.9
62.5°	75.1	75.2	75.4	76.5	77.6	79.4	81.2	85.0	88.8	96.0	103.2
65°	65.3	65.9	66.4	66.9	67.5	68.9	70.4	73.6	76.9	82.3	87.7
67.5°	55.2	55.7	56.3	57.2	58.1	59.4	60.6	62.8	64.9	70.0	75.1
70°	42.9	42.9	42.9	44.4	45.8	48.0	50.2	51.8	53.4	57.6	61.7
72.5°	35.0	35.2	35.4	35.5	35.7	37.0	38.2	41.0	43.7	46.2	48.7
75°	28.5	28.7	28.9	29.0	29.2	29.6	29.9	30.9	31.8	34.6	37.5
77.5°	22.7	22.9	23.1	23.3	23.5	23.8	24.2	24.5	24.9	26.0	27.1
80°	17.3	17.5	17.7	17.9	18.0	18.2	18.4	18.8	19.1	19.7	20.2
82.5°	12.6	12.6	12.6	12.6	12.6	13.0	13.4	13.4	13.4	13.7	14.1
85°	7.9	7.9	7.9	8.1	8.3	8.3	8.3	8.5	8.7	8.7	8.7
87.5°	3.6	3.4	3.2	3.4	3.6	3.6	3.6	3.8	4.0	4.0	4.0
90°	13.6	13.4	13.2	13.0	12.8	12.5	12.0	11.6	11.2	10.8	9.5
92.5°	15.4	15.3	15.2	15.1	15.0	14.6	13.9	13.2	12.5	11.7	10.8
95°	17.2	17.2	17.2	17.2	17.2	16.8	16.1	15.4	14.7	14.0	12.9
97.5°	18.5	18.4	18.3	18.2	18.1	17.7	16.9	16.1	15.3	14.5	19.6
100°	19.0	18.9	18.8	18.7	18.6	18.1	17.3	16.5	15.7	14.9	30.6
102.5°	19.4	19.2	19.0	18.8	18.6	20.2	23.5	26.8	30.1	33.4	50.9
105°	19.9	19.7	19.5	19.3	19.1	27.9	45.6	63.4	81.2	98.9	108.0
107.5°	47.0	60.1	73.3	86.4	99.6	113.9	129.4	144.8	160.3	175.8	174.3
110°	124.3	138.6	153.0	167.3	181.7	190.5	193.8	197.1	200.5	203.8	202.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	235.4	235.6	235.8	236.0	236.2	235.9	234.9	234.0	233.1	232.2	231.1
115°	265.7	265.3	264.9	264.5	264.1	263.4	262.4	261.4	260.4	259.3	258.4
117.5°	290.1	290.0	289.9	289.8	289.7	289.2	288.4	287.6	286.8	286.0	285.5
120°	315.4	315.4	315.4	315.4	315.4	315.0	314.2	313.4	312.6	311.8	311.5
122.5°	340.2	340.1	340.0	339.9	339.8	339.5	339.0	338.5	338.0	337.5	337.1
125°	363.3	363.1	362.9	362.7	362.5	362.3	362.1	361.9	361.7	361.5	361.1
127.5°	385.9	386.1	386.3	386.5	386.7	386.6	386.3	386.0	385.7	385.4	384.9
130°	407.5	407.7	407.9	408.1	408.3	408.2	407.8	407.4	407.0	406.6	406.2
132.5°	427.4	427.7	428.0	428.3	428.6	428.6	428.2	427.8	427.4	427.0	426.7
135°	447.8	448.1	448.4	448.7	449.0	449.0	448.7	448.4	448.1	447.8	447.4
137.5°	467.2	467.4	467.6	467.8	468.0	467.8	467.3	466.8	466.3	465.8	465.6
140°	484.4	484.6	484.8	485.0	485.2	485.1	484.7	484.3	483.9	483.5	483.2
142.5°	500.2	500.5	500.8	501.1	501.4	501.4	501.1	500.8	500.5	500.2	499.9
145°	516.4	516.4	516.4	516.4	516.4	516.3	516.1	515.9	515.7	515.5	515.3
147.5°	528.2	528.7	529.2	529.7	530.2	530.3	530.1	529.9	529.7	529.5	529.3
150°	541.7	542.0	542.3	542.6	542.9	543.0	542.8	542.6	542.4	542.2	542.0
152.5°	552.6	553.1	553.6	554.1	554.6	554.6	554.2	553.8	553.4	553.0	552.9
155°	562.5	563.1	563.7	564.3	564.9	565.0	564.5	564.0	563.5	563.0	562.9
157.5°	571.1	571.9	572.7	573.5	574.3	574.4	573.8	573.2	572.6	572.0	572.1
160°	579.2	579.9	580.6	581.3	582.1	582.1	581.5	580.9	580.3	579.7	579.8
162.5°	586.9	587.5	588.1	588.7	589.3	589.3	588.6	587.9	587.2	586.5	586.6
165°	592.8	593.5	594.2	594.9	595.6	595.6	594.8	593.9	593.1	592.3	592.4
167.5°	597.3	598.1	598.9	599.7	600.5	600.5	599.7	598.9	598.1	597.3	597.3
170°	601.4	602.2	603.0	603.8	604.6	604.6	603.8	603.0	602.2	601.4	601.4
172.5°	603.6	604.5	605.4	606.3	607.3	607.3	606.5	605.7	604.9	604.1	604.0
175°	605.9	606.7	607.5	608.3	609.1	609.2	608.5	607.8	607.1	606.3	606.2
177.5°	606.3	607.4	608.4	609.4	610.4	610.5	609.7	608.9	608.1	607.3	607.2
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	934.4	933.5	924.8	916.1	907.7	899.2	892.9	886.6	875.9	865.3	858.6
5°	992.3	985.4	971.7	958.0	937.4	916.9	899.5	882.2	860.2	838.2	819.8
7.5°	1024.6	1019.0	1002.4	985.8	958.5	931.3	904.2	877.2	844.7	812.2	784.4
10°	1025.5	1030.2	1016.4	1002.7	972.1	941.4	904.6	867.8	824.1	780.5	744.6
12.5°	993.4	1013.6	1010.7	1007.8	976.6	945.4	900.6	855.9	802.3	748.7	703.8
15°	933.3	972.4	984.0	995.5	969.7	943.9	893.0	842.2	779.2	716.2	664.6
17.5°	855.9	910.7	941.2	971.7	952.9	934.2	878.4	822.7	751.8	680.9	624.8
20°	764.2	836.0	883.8	931.7	924.8	917.9	860.4	802.8	726.3	649.8	589.0
22.5°	673.7	749.4	815.5	881.5	888.5	895.6	837.5	779.4	695.7	612.0	550.1
25°	595.5	672.6	751.2	829.9	845.8	861.7	806.4	751.2	664.5	577.7	516.2
27.5°	521.0	594.3	680.9	767.5	796.3	825.2	774.7	724.2	633.8	543.4	482.1
30°	460.2	525.7	614.1	702.5	742.8	783.0	736.6	690.3	600.6	510.9	450.9
32.5°	403.6	462.2	551.0	639.7	686.5	733.2	693.1	653.1	566.9	480.6	421.3
35°	358.8	411.3	494.2	577.0	629.3	681.6	648.8	615.9	531.7	447.4	391.3
37.5°	320.4	364.4	442.2	520.0	575.5	631.1	603.7	576.2	497.0	417.8	364.8
40°	288.7	324.0	396.4	468.7	523.2	577.7	554.2	530.8	459.9	389.0	339.4
42.5°	261.4	291.9	356.9	421.8	471.8	521.8	506.2	490.7	426.5	362.3	316.3
45°	237.4	263.0	320.2	377.4	423.4	469.4	457.2	444.9	389.5	334.1	291.9
47.5°	216.1	238.1	289.2	340.3	381.6	422.9	411.5	400.2	354.3	308.5	270.1
50°	196.7	215.4	258.0	300.6	337.7	374.9	365.5	356.1	318.2	280.4	247.2
52.5°	178.2	193.8	232.0	270.3	300.2	330.2	322.9	315.7	286.5	257.3	227.1
55°	160.7	175.0	207.3	239.6	265.2	290.8	283.6	276.4	253.7	230.9	204.4
57.5°	144.9	157.3	183.5	209.6	230.0	250.4	247.0	243.6	224.6	205.7	183.8
60°	128.1	139.3	161.8	184.4	200.8	217.2	213.2	209.3	195.7	182.2	163.5
62.5°	113.1	123.0	141.1	159.1	172.5	185.8	182.9	180.1	169.8	159.5	144.0
65°	97.4	107.2	121.8	136.4	146.9	157.3	154.8	152.3	144.5	136.8	124.3
67.5°	83.2	91.3	103.9	116.5	123.6	130.6	129.2	127.7	121.8	115.8	106.1
70°	68.7	75.8	86.2	96.7	101.6	106.4	107.0	107.5	102.1	96.7	89.5
72.5°	54.3	59.9	69.6	79.4	83.2	87.0	86.8	86.6	83.4	80.1	73.6
75°	41.7	45.8	53.4	61.0	64.2	67.5	68.2	68.9	65.9	62.8	59.2
77.5°	29.9	32.8	38.6	44.4	48.0	51.6	52.0	52.3	50.9	49.4	46.0
80°	21.1	22.0	25.6	29.2	33.0	36.8	37.3	37.9	36.4	35.0	32.8
82.5°	14.6	15.2	16.4	17.7	20.7	23.8	24.5	25.3	24.5	23.8	21.5
85°	8.8	9.0	9.6	10.1	11.5	13.0	13.7	14.4	14.1	13.7	12.4
87.5°	4.0	4.0	4.1	4.3	4.7	5.1	6.0	6.9	6.3	5.8	5.2
90°	8.2	6.9	5.6	4.5	3.5	2.5	1.5	0.5	1.5	2.5	3.5
92.5°	9.9	9.0	8.1	8.0	8.6	9.2	9.8	10.4	9.8	9.2	8.6
95°	11.8	10.7	9.6	11.1	15.2	19.3	23.4	27.6	23.4	19.3	15.2
97.5°	24.7	29.8	34.9	38.9	41.7	44.5	47.3	50.2	47.3	44.5	41.7
100°	46.2	61.9	77.6	84.4	82.4	80.4	78.4	76.4	78.4	80.4	82.4
102.5°	68.4	85.8	103.3	111.4	110.1	108.8	107.5	106.2	107.5	108.8	110.1
105°	117.0	126.1	135.1	139.1	138.0	136.9	135.7	134.6	135.7	136.9	138.0
107.5°	172.7	171.2	169.7	168.5	167.6	166.7	165.8	164.9	165.8	166.7	167.6
110°	201.6	200.5	199.4	198.4	197.6	196.8	196.0	195.2	196.0	196.8	197.6



TEST NUMBER: P832128

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	230.0	228.9	227.8	226.9	226.2	225.5	224.8	224.1	224.8	225.5	226.2
115°	257.5	256.6	255.7	255.0	254.4	253.8	253.2	252.6	253.2	253.8	254.4
117.5°	285.0	284.5	284.0	283.4	282.7	282.0	281.3	280.6	281.3	282.0	282.7
120°	311.2	310.9	310.6	310.0	309.0	308.1	307.2	306.3	307.2	308.1	309.0
122.5°	336.7	336.3	335.9	335.4	334.7	333.9	333.2	332.5	333.2	333.9	334.7
125°	360.7	360.3	359.9	359.3	358.4	357.6	356.8	356.0	356.8	357.6	358.4
127.5°	384.4	383.9	383.4	382.7	381.9	381.1	380.3	379.5	380.3	381.1	381.9
130°	405.8	405.4	405.0	404.4	403.6	402.8	402.0	401.2	402.0	402.8	403.6
132.5°	426.4	426.1	425.8	425.2	424.4	423.6	422.8	422.0	422.8	423.6	424.4
135°	447.0	446.6	446.2	445.7	445.0	444.4	443.8	443.2	443.8	444.4	445.0
137.5°	465.4	465.2	465.0	464.5	463.7	462.9	462.1	461.3	462.1	462.9	463.7
140°	482.9	482.5	482.2	481.8	481.2	480.6	480.0	479.4	480.0	480.6	481.2
142.5°	499.6	499.3	499.0	498.5	497.9	497.3	496.7	496.1	496.7	497.3	497.9
145°	515.1	514.9	514.7	514.3	513.6	512.9	512.2	511.5	512.2	512.9	513.6
147.5°	529.1	528.9	528.7	528.4	527.9	527.4	526.9	526.4	526.9	527.4	527.9
150°	541.8	541.6	541.4	541.1	540.8	540.5	540.2	539.9	540.2	540.5	540.8
152.5°	552.8	552.7	552.6	552.5	552.4	552.3	552.2	552.1	552.2	552.3	552.4
155°	562.8	562.7	562.6	562.6	562.8	563.0	563.2	563.4	563.2	563.0	562.8
157.5°	572.2	572.3	572.4	572.5	572.5	572.5	572.5	572.5	572.5	572.5	572.5
160°	579.9	580.0	580.1	580.2	580.3	580.4	580.5	580.6	580.5	580.4	580.3
162.5°	586.7	586.8	586.9	587.1	587.4	587.7	588.0	588.3	588.0	587.7	587.4
165°	592.5	592.6	592.7	592.9	593.2	593.5	593.8	594.1	593.8	593.5	593.2
167.5°	597.3	597.3	597.3	597.5	597.9	598.3	598.7	599.1	598.7	598.3	597.9
170°	601.4	601.4	601.4	601.6	602.0	602.4	602.8	603.2	602.8	602.4	602.0
172.5°	603.9	603.8	603.7	603.9	604.4	604.9	605.4	605.9	605.4	604.9	604.4
175°	606.1	606.0	605.9	606.1	606.7	607.2	607.7	608.2	607.7	607.2	606.7
177.5°	607.1	607.0	606.9	607.1	607.6	608.1	608.6	609.1	608.6	608.1	607.6
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2



TEST NUMBER: P832128

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	851.9	841.6	831.3	823.9	816.6	807.3	798.1	797.8	797.4	790.6	783.7
5°	801.4	783.5	765.7	748.2	730.7	713.2	695.7	691.7	687.7	681.8	675.8
7.5°	756.7	728.1	699.6	677.3	654.9	637.4	619.9	608.0	596.1	586.9	577.7
10°	708.7	673.3	637.9	610.9	583.8	564.9	545.9	532.2	518.5	512.0	505.5
12.5°	658.9	620.4	582.0	555.5	529.0	506.2	483.5	471.1	458.6	449.6	440.6
15°	613.0	571.7	530.4	502.3	474.1	452.8	431.5	419.1	406.7	397.6	388.6
17.5°	568.7	527.0	485.3	456.8	428.3	409.0	389.7	377.6	365.5	359.9	354.3
20°	528.3	486.2	444.2	417.3	390.4	371.5	352.5	346.0	339.5	334.3	329.1
22.5°	488.2	447.8	407.4	381.6	355.8	342.1	328.4	323.1	317.9	313.9	310.0
25°	454.6	414.4	374.2	351.6	329.1	318.4	307.8	304.4	300.9	297.0	293.0
27.5°	420.7	382.5	344.2	326.2	308.1	299.5	290.8	286.5	282.2	278.9	275.7
30°	390.8	355.4	320.1	305.1	290.1	282.5	274.9	270.3	265.6	262.5	259.4
32.5°	361.9	330.5	299.1	286.3	273.5	266.1	258.7	254.2	249.7	246.1	242.5
35°	335.2	308.0	280.7	269.0	257.3	249.9	242.5	238.0	233.5	229.8	226.2
37.5°	311.8	287.0	262.3	251.3	240.3	233.8	227.3	222.6	217.9	214.2	210.4
40°	289.7	267.9	246.1	235.4	224.8	217.8	210.7	206.6	202.4	199.0	195.6
42.5°	270.3	250.2	230.2	219.7	209.3	202.6	195.9	191.1	186.2	184.2	182.2
45°	249.7	232.0	214.3	204.2	194.1	187.1	180.1	175.9	171.8	169.9	168.1
47.5°	231.7	215.2	198.8	188.9	179.0	172.7	166.3	163.1	159.8	157.3	154.8
50°	214.0	198.1	182.2	172.7	163.1	157.7	152.3	148.3	144.3	142.5	140.7
52.5°	197.0	182.6	168.1	158.4	148.7	143.4	138.2	134.8	131.3	127.6	123.8
55°	177.9	165.3	152.6	144.0	135.3	129.9	124.5	120.5	116.5	112.6	108.6
57.5°	162.0	149.6	137.1	129.4	121.6	116.4	111.1	106.8	102.5	99.2	96.0
60°	144.7	133.9	123.0	115.5	107.9	102.8	97.8	93.6	89.5	87.9	86.2
62.5°	128.5	118.4	108.2	101.6	94.9	90.0	85.2	82.4	79.7	78.7	77.6
65°	111.9	103.2	94.5	88.4	82.3	78.1	74.0	72.7	71.4	70.5	69.6
67.5°	96.3	88.9	81.5	76.1	70.7	67.8	64.9	63.5	62.1	61.0	59.9
70°	82.3	75.8	69.3	64.6	59.9	57.2	54.5	53.2	52.0	50.0	48.0
72.5°	67.1	62.1	57.0	53.4	49.8	47.4	45.1	42.6	40.1	38.2	36.4
75°	55.6	50.5	45.5	42.0	38.6	35.9	33.2	32.3	31.4	30.9	30.3
77.5°	42.6	38.2	33.9	31.2	28.5	27.2	26.0	25.4	24.9	24.7	24.5
80°	30.7	27.1	23.5	22.0	20.6	20.2	19.8	19.5	19.1	18.9	18.8
82.5°	19.1	17.3	15.5	15.2	14.8	14.6	14.4	14.3	14.1	13.9	13.7
85°	11.2	10.5	9.7	9.6	9.4	9.2	9.0	9.0	9.0	9.0	9.0
87.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.5	4.3
90°	4.5	5.6	6.9	8.2	9.5	10.8	11.2	11.6	12.0	12.5	12.8
92.5°	8.0	8.1	9.0	9.9	10.8	11.7	12.5	13.2	13.9	14.6	15.0
95°	11.1	9.6	10.7	11.8	12.9	14.0	14.7	15.4	16.1	16.8	17.2
97.5°	38.9	34.9	29.8	24.7	19.6	14.5	15.3	16.1	16.9	17.7	18.1
100°	84.4	77.6	61.9	46.2	30.6	14.9	15.7	16.5	17.3	18.1	18.6
102.5°	111.4	103.3	85.8	68.4	50.9	33.4	30.1	26.8	23.5	20.2	18.6
105°	139.1	135.1	126.1	117.0	108.0	98.9	81.2	63.4	45.6	27.9	19.1
107.5°	168.5	169.7	171.2	172.7	174.3	175.8	160.3	144.8	129.4	113.9	99.6
110°	198.4	199.4	200.5	201.6	202.7	203.8	200.5	197.1	193.8	190.5	181.7



TEST NUMBER: P832128

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	226.9	227.8	228.9	230.0	231.1	232.2	233.1	234.0	234.9	235.9	236.2
115°	255.0	255.7	256.6	257.5	258.4	259.3	260.4	261.4	262.4	263.4	264.1
117.5°	283.4	284.0	284.5	285.0	285.5	286.0	286.8	287.6	288.4	289.2	289.7
120°	310.0	310.6	310.9	311.2	311.5	311.8	312.6	313.4	314.2	315.0	315.4
122.5°	335.4	335.9	336.3	336.7	337.1	337.5	338.0	338.5	339.0	339.5	339.8
125°	359.3	359.9	360.3	360.7	361.1	361.5	361.7	361.9	362.1	362.3	362.5
127.5°	382.7	383.4	383.9	384.4	384.9	385.4	385.7	386.0	386.3	386.6	386.7
130°	404.4	405.0	405.4	405.8	406.2	406.6	407.0	407.4	407.8	408.2	408.3
132.5°	425.2	425.8	426.1	426.4	426.7	427.0	427.4	427.8	428.2	428.6	428.6
135°	445.7	446.2	446.6	447.0	447.4	447.8	448.1	448.4	448.7	449.0	449.0
137.5°	464.5	465.0	465.2	465.4	465.6	465.8	466.3	466.8	467.3	467.8	468.0
140°	481.8	482.2	482.5	482.9	483.2	483.5	483.9	484.3	484.7	485.1	485.2
142.5°	498.5	499.0	499.3	499.6	499.9	500.2	500.5	500.8	501.1	501.4	501.4
145°	514.3	514.7	514.9	515.1	515.3	515.5	515.7	515.9	516.1	516.3	516.4
147.5°	528.4	528.7	528.9	529.1	529.3	529.5	529.7	529.9	530.1	530.3	530.2
150°	541.1	541.4	541.6	541.8	542.0	542.2	542.4	542.6	542.8	543.0	542.9
152.5°	552.5	552.6	552.7	552.8	552.9	553.0	553.4	553.8	554.2	554.6	554.6
155°	562.6	562.6	562.7	562.8	562.9	563.0	563.5	564.0	564.5	565.0	564.9
157.5°	572.5	572.4	572.3	572.2	572.1	572.0	572.6	573.2	573.8	574.4	574.3
160°	580.2	580.1	580.0	579.9	579.8	579.7	580.3	580.9	581.5	582.1	582.1
162.5°	587.1	586.9	586.8	586.7	586.6	586.5	587.2	587.9	588.6	589.3	589.3
165°	592.9	592.7	592.6	592.5	592.4	592.3	593.1	593.9	594.8	595.6	595.6
167.5°	597.5	597.3	597.3	597.3	597.3	597.3	598.1	598.9	599.7	600.5	600.5
170°	601.6	601.4	601.4	601.4	601.4	601.4	602.2	603.0	603.8	604.6	604.6
172.5°	603.9	603.7	603.8	603.9	604.0	604.1	604.9	605.7	606.5	607.3	607.3
175°	606.1	605.9	606.0	606.1	606.2	606.3	607.1	607.8	608.5	609.2	609.1
177.5°	607.1	606.9	607.0	607.1	607.2	607.3	608.1	608.9	609.7	610.5	610.4
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2



TEST NUMBER: P832128

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	880.1	880.1	880.1	880.1
2.5°	781.9	780.1	779.4	778.7
5°	670.2	664.6	663.4	662.1
7.5°	575.3	573.0	565.2	557.5
10°	498.3	491.1	487.8	484.6
12.5°	433.9	427.2	426.1	425.1
15°	383.9	379.2	377.6	376.0
17.5°	351.1	347.8	345.9	343.9
20°	326.7	324.4	322.9	321.5
22.5°	308.1	306.3	305.3	304.2
25°	290.3	287.6	286.7	285.8
27.5°	273.3	271.0	270.1	269.2
30°	257.4	255.5	254.2	252.9
32.5°	240.1	237.8	237.1	236.3
35°	224.8	223.4	222.6	221.9
37.5°	208.6	206.8	205.7	204.6
40°	194.7	193.8	193.2	192.7
42.5°	180.6	179.0	178.8	178.6
45°	166.5	164.9	164.5	164.2
47.5°	153.4	151.9	151.7	151.5
50°	138.7	136.8	135.3	133.9
52.5°	122.0	120.2	118.9	117.6
55°	106.6	104.6	103.6	102.5
57.5°	95.1	94.2	93.6	93.1
60°	85.7	85.2	84.8	84.4
62.5°	77.0	76.5	76.5	76.5
65°	69.1	68.6	68.0	67.5
67.5°	58.8	57.7	57.6	57.4
70°	46.4	44.7	44.6	44.4
72.5°	36.3	36.1	35.7	35.4
75°	29.9	29.6	29.6	29.6
77.5°	24.2	23.8	23.8	23.8
80°	18.6	18.4	18.6	18.8
82.5°	13.7	13.7	13.5	13.4
85°	8.8	8.7	8.7	8.7
87.5°	4.3	4.3	4.3	4.3
90°	13.0	13.2	13.4	13.6
92.5°	15.1	15.2	15.3	15.4
95°	17.2	17.2	17.2	17.2
97.5°	18.2	18.3	18.4	18.5
100°	18.7	18.8	18.9	19.0
102.5°	18.8	19.0	19.2	19.4
105°	19.3	19.5	19.7	19.9
107.5°	86.4	73.3	60.1	47.0
110°	167.3	153.0	138.6	124.3



TEST NUMBER: P832128

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	236.0	235.8	235.6	235.4
115°	264.5	264.9	265.3	265.7
117.5°	289.8	289.9	290.0	290.1
120°	315.4	315.4	315.4	315.4
122.5°	339.9	340.0	340.1	340.2
125°	362.7	362.9	363.1	363.3
127.5°	386.5	386.3	386.1	385.9
130°	408.1	407.9	407.7	407.5
132.5°	428.3	428.0	427.7	427.4
135°	448.7	448.4	448.1	447.8
137.5°	467.8	467.6	467.4	467.2
140°	485.0	484.8	484.6	484.4
142.5°	501.1	500.8	500.5	500.2
145°	516.4	516.4	516.4	516.4
147.5°	529.7	529.2	528.7	528.2
150°	542.6	542.3	542.0	541.7
152.5°	554.1	553.6	553.1	552.6
155°	564.3	563.7	563.1	562.5
157.5°	573.5	572.7	571.9	571.1
160°	581.3	580.6	579.9	579.2
162.5°	588.7	588.1	587.5	586.9
165°	594.9	594.2	593.5	592.8
167.5°	599.7	598.9	598.1	597.3
170°	603.8	603.0	602.2	601.4
172.5°	606.3	605.4	604.5	603.6
175°	608.3	607.5	606.7	605.9
177.5°	609.4	608.4	607.4	606.3
180°	608.2	608.2	608.2	608.2



TEST NUMBER: P832128

CATALOG NUMBER: S123RDIP-S340D585U927-4F0-1E-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	7.39	8.12	8.45	9.17	10.60	12.05	12.78	13.11	13.84	15.27
	3H	8.60	9.25	9.67	10.32	11.77	13.55	14.20	14.61	15.26	16.71
	4H	8.98	9.60	10.06	10.66	12.12	14.03	14.65	15.11	15.71	17.17
	6H	9.26	9.82	10.34	10.89	12.36	14.34	14.90	15.43	15.97	17.44
	8H	9.34	9.88	10.43	10.96	12.42	14.41	14.95	15.51	16.04	17.50
	12H	9.39	9.90	10.48	10.98	12.46	14.44	14.95	15.54	16.03	17.51
4H	2H	8.10	8.72	9.19	9.78	11.24	12.04	12.65	13.12	13.72	15.17
	3H	9.46	9.97	10.55	11.07	12.53	13.69	14.20	14.78	15.29	16.76
	4H	9.91	10.38	11.01	11.47	12.95	14.29	14.76	15.39	15.84	17.33
	6H	10.28	10.68	11.38	11.78	13.27	14.72	15.12	15.83	16.23	17.71
	8H	10.40	10.77	11.50	11.87	13.37	14.85	15.23	15.95	16.32	17.82
	12H	10.47	10.81	11.59	11.92	13.42	14.91	15.25	16.03	16.36	17.86
8H	4H	10.22	10.59	11.32	11.69	13.19	14.25	14.62	15.35	15.72	17.22
	6H	10.68	10.99	11.81	12.13	13.62	14.74	15.05	15.87	16.19	17.69
	8H	10.87	11.14	12.01	12.27	13.78	14.93	15.20	16.06	16.32	17.83
	12H	11.01	11.25	12.14	12.36	13.92	15.04	15.28	16.17	16.39	17.94
12H	4H	10.23	10.57	11.35	11.68	13.18	14.19	14.53	15.32	15.65	17.15
	6H	10.74	11.01	11.87	12.13	13.64	14.72	14.99	15.85	16.11	17.62
	8H	10.95	11.19	12.09	12.31	13.86	14.90	15.14	16.04	16.26	17.81