

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: P832076

Luminaire Tested: S123RDIP-S340D1195U927-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832076
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-S340D1195U927-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

Summary

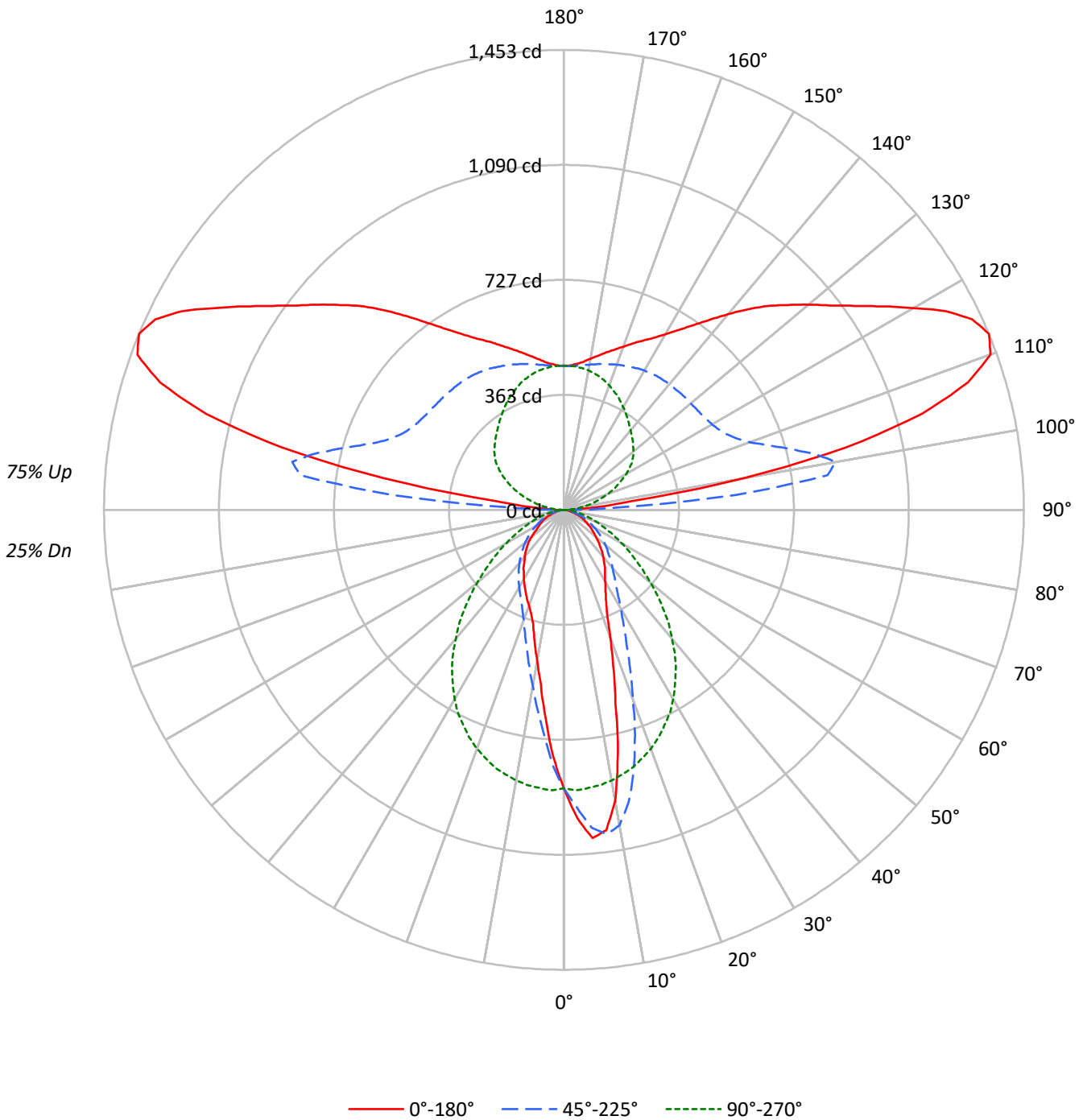
Lumens per Lamp: N/A
Luminaire Lumens: 4589.5 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 43.4
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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	25				
1	93	89	85	82	83	79	76	74	62	60	58	45	44	43	30	30	29	22				
2	85	78	72	67	75	70	65	61	54	51	48	40	38	37	27	26	25	19				
3	78	69	62	57	69	62	56	51	48	44	41	36	33	31	24	23	22	17				
4	71	61	54	48	63	55	49	44	43	39	35	32	29	27	22	21	19	15				
5	65	55	47	41	58	49	43	38	39	34	31	29	26	24	20	18	17	13				
6	60	49	41	36	54	44	38	33	35	30	27	27	23	21	19	17	15	12				
7	56	44	37	32	50	40	34	29	32	27	24	24	21	19	17	15	14	11				
8	52	40	33	28	46	36	30	26	29	25	21	22	19	17	16	14	13	10				
9	48	37	30	25	43	33	27	23	27	22	19	21	17	15	15	13	11	9				
10	45	34	27	22	40	31	25	21	25	20	17	19	16	14	14	12	11	8				

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	1.7
10°-20°	185.6	4.0
20°-30°	213.0	4.6
30°-40°	209.9	4.6
40°-50°	185.1	4.0
50°-60°	142.4	3.1
60°-70°	93.6	2.0
70°-80°	45.5	1.0
80°-90°	14.0	0.3
90°-100°	246.7	5.4
100°-110°	722.3	15.7
110°-120°	705.4	15.4
120°-130°	561.8	12.2
130°-140°	443.2	9.7
140°-150°	330.6	7.2
150°-160°	230.5	5.0
160°-170°	135.4	3.0
170°-180°	44.1	1.0
0°-30°	478.8	10.4
0°-40°	688.7	15.0
0°-60°	1016.3	22.1
0°-90°	1169.3	25.5
90°-120°	1674.5	36.5
90°-150°	3010.1	65.6
90°-180°	3420.0	74.5
0°-180°	4589.5	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°	27	23	2	23	27	14
95°	107	546	31	546	107	174
105°	1171	740	107	740	1171	1168
115°	1424	566	189	566	1424	1388
125°	1123	528	262	528	1123	1016
135°	910	521	307	521	910	706
145°	712	514	351	514	712	452
155°	590	498	398	498	590	275
165°	514	477	435	477	514	147
175°	463	457	454	457	463	45
180°	455	455	455	455	455	



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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°	26.7	27.6	26.7	25.8	26.7	24.9	23.9	23.0	22.1	23.0	20.2
92.5°	48.8	50.6	49.7	53.4	55.2	61.7	70.9	91.1	127.9	171.2	189.6
95°	106.8	110.4	116.9	125.2	142.7	175.8	224.6	331.3	442.7	545.8	486.0
97.5°	219.1	229.2	251.3	286.2	347.9	452.8	574.3	761.2	867.9	839.4	626.8
100°	577.1	576.2	612.1	679.3	772.2	902.9	1010.6	1085.1	1052.9	871.6	589.1
102.5°	914.0	940.6	969.2	1018.9	1086.1	1156.9	1208.5	1192.8	1062.1	811.8	533.8
105°	1170.7	1175.3	1204.8	1239.8	1282.1	1306.0	1288.6	1196.5	1004.1	740.0	490.6
107.5°	1338.3	1348.4	1360.3	1376.9	1382.4	1357.6	1285.8	1141.3	921.3	676.5	459.3
110°	1434.0	1435.8	1437.7	1430.3	1404.5	1340.1	1224.1	1054.8	844.0	624.0	442.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1453.3	1452.4	1443.2	1416.5	1364.0	1276.6	1143.1	969.2	776.8	589.1	433.5
115°	1423.8	1419.2	1400.8	1360.3	1291.3	1191.0	1055.7	895.5	725.3	566.0	432.6
117.5°	1359.4	1353.0	1325.4	1280.3	1208.5	1104.5	980.2	838.5	691.2	550.4	433.5
120°	1274.7	1269.2	1247.1	1195.6	1122.9	1029.9	919.5	795.2	665.4	540.3	437.2
122.5°	1195.6	1188.2	1163.4	1118.3	1055.7	971.0	870.7	761.2	644.3	533.8	443.6
125°	1122.9	1116.4	1093.4	1052.9	994.0	920.4	832.0	731.7	626.8	528.3	450.1
127.5°	1060.3	1054.8	1033.6	998.6	945.2	877.1	796.1	705.0	610.2	525.5	457.4
130°	1008.8	1001.4	982.1	948.9	900.1	837.6	763.0	680.2	597.3	522.8	464.8
132.5°	958.1	953.5	937.0	903.8	858.7	799.8	731.7	657.2	585.4	521.9	470.3
135°	910.3	903.8	887.3	859.6	814.5	762.1	702.3	636.9	575.2	520.9	475.8
137.5°	859.6	854.1	840.3	811.8	773.1	726.2	672.8	617.6	566.0	519.1	479.5
140°	806.3	807.2	792.5	766.7	731.7	692.1	648.0	601.0	557.8	518.2	483.2
142.5°	756.6	757.5	744.6	722.5	694.0	660.8	624.0	585.4	550.4	516.3	486.0
145°	711.5	709.6	702.3	682.9	659.9	633.2	603.8	573.4	544.0	514.5	486.9
147.5°	672.8	671.9	664.5	650.7	632.3	613.0	588.1	563.3	537.5	511.7	486.9
150°	639.7	639.7	634.2	624.0	610.2	592.7	573.4	552.2	531.1	508.1	486.9
152.5°	612.1	612.1	609.3	600.1	590.0	576.2	559.6	542.1	523.7	503.5	484.1
155°	590.0	589.1	587.2	579.8	571.6	560.5	546.7	532.0	516.3	497.9	482.3
157.5°	568.8	568.8	567.0	561.4	554.1	544.9	533.8	520.9	508.1	493.3	479.5
160°	548.6	549.5	549.5	544.0	537.5	531.1	521.9	511.7	499.8	487.8	477.7
162.5°	530.1	531.1	531.1	526.5	522.8	517.3	509.0	500.7	491.5	482.3	474.0
165°	514.5	514.5	515.4	511.7	508.1	503.5	497.0	491.5	484.1	476.8	470.3
167.5°	498.9	498.9	499.8	497.0	495.2	491.5	487.8	483.2	476.8	471.2	466.6
170°	485.0	485.0	486.0	484.1	483.2	481.4	477.7	474.9	470.3	465.7	463.0
172.5°	472.2	473.1	474.9	473.1	473.1	472.2	469.4	467.6	463.9	461.1	460.2
175°	463.0	463.9	464.8	463.9	463.9	463.9	462.0	461.1	459.3	457.4	457.4
177.5°	456.5	456.5	458.4	457.4	458.4	458.4	457.4	456.5	455.6	454.7	455.6
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7



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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°	17.5	14.7	12.0	10.1	8.3	5.5	3.7	1.8	3.7	5.5	8.3
92.5°	141.7	93.0	63.5	46.9	37.7	29.5	20.2	13.8	20.2	29.5	37.7
95°	335.0	197.9	119.7	83.8	59.8	44.2	34.1	31.3	34.1	44.2	59.8
97.5°	372.8	213.5	136.2	96.6	72.7	58.9	50.6	49.7	50.6	58.9	72.7
100°	347.0	210.8	146.3	110.4	88.4	75.5	69.0	68.1	69.0	75.5	88.4
102.5°	324.9	214.5	158.3	126.1	106.8	94.8	89.3	87.4	89.3	94.8	106.8
105°	316.6	221.8	172.1	143.6	126.1	115.0	109.5	106.8	109.5	115.0	126.1
107.5°	314.8	233.8	189.6	162.9	146.3	135.3	129.8	127.0	129.8	135.3	146.3
110°	319.4	249.4	208.0	182.2	166.6	156.5	151.9	149.1	151.9	156.5	166.6



TEST NUMBER: P832076

CATALOG NUMBER: S123RDIP-S340D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	328.6	265.1	227.3	202.5	186.8	176.7	172.1	169.4	172.1	176.7	186.8
115°	338.7	282.6	247.6	222.7	207.1	197.9	192.4	188.7	192.4	197.9	207.1
117.5°	351.6	301.0	266.0	243.0	225.5	217.2	212.6	208.0	212.6	217.2	225.5
120°	366.3	318.5	285.3	262.3	244.8	235.6	231.0	228.3	231.0	235.6	244.8
122.5°	380.1	336.9	304.7	279.8	263.2	253.1	248.5	245.7	248.5	253.1	263.2
125°	394.8	354.4	322.1	297.3	279.8	269.7	264.2	262.3	264.2	269.7	279.8
127.5°	406.8	370.0	338.7	313.9	294.5	284.4	278.0	275.2	278.0	284.4	294.5
130°	418.8	383.8	353.4	328.6	309.3	298.2	289.9	287.2	289.9	298.2	309.3
132.5°	429.8	395.8	366.3	342.4	323.1	309.3	300.0	296.4	300.0	309.3	323.1
135°	439.0	407.7	379.2	354.4	335.0	321.2	311.1	307.4	311.1	321.2	335.0
137.5°	446.4	416.0	388.4	365.4	346.1	331.3	321.2	317.5	321.2	331.3	346.1
140°	451.9	424.3	397.6	374.6	356.2	341.5	332.3	327.7	332.3	341.5	356.2
142.5°	457.4	430.7	405.0	383.8	365.4	352.5	342.4	338.7	342.4	352.5	365.4
145°	461.1	436.3	412.3	391.2	375.5	361.7	353.4	350.7	353.4	361.7	375.5
147.5°	463.9	440.9	418.8	400.4	384.7	372.8	364.5	362.6	364.5	372.8	384.7
150°	464.8	445.5	424.3	407.7	394.8	382.9	375.5	374.6	375.5	382.9	394.8
152.5°	466.6	448.2	430.7	415.1	404.1	393.9	386.6	386.6	386.6	393.9	404.1
155°	466.6	451.9	436.3	423.4	413.3	404.1	398.5	398.5	398.5	404.1	413.3
157.5°	467.6	453.8	440.9	430.7	421.5	413.3	408.7	407.7	408.7	413.3	421.5
160°	467.6	456.5	445.5	436.3	429.8	422.5	418.8	418.8	418.8	422.5	429.8
162.5°	466.6	457.4	448.2	440.9	435.3	429.8	427.1	427.1	427.1	429.8	435.3
165°	464.8	458.4	451.0	444.6	440.9	436.3	434.4	435.3	434.4	436.3	440.9
167.5°	463.9	458.4	452.8	448.2	445.5	441.8	440.9	441.8	440.9	441.8	445.5
170°	461.1	457.4	452.8	451.0	449.2	446.4	445.5	447.3	445.5	446.4	449.2
172.5°	460.2	457.4	453.8	452.8	451.9	450.1	450.1	451.0	450.1	450.1	451.9
175°	458.4	456.5	454.7	453.8	453.8	451.9	452.8	453.8	452.8	451.9	453.8
177.5°	457.4	455.6	454.7	454.7	454.7	453.8	454.7	455.6	454.7	453.8	454.7
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7



TEST NUMBER: P832076

CATALOG NUMBER: S123RDIP-S340D1195U927-4F0-1E-UDD-G4

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°	10.1	12.0	14.7	17.5	20.2	23.0	22.1	23.0	23.9	24.9	26.7
92.5°	46.9	63.5	93.0	141.7	189.6	171.2	127.9	91.1	70.9	61.7	55.2
95°	83.8	119.7	197.9	335.0	486.0	545.8	442.7	331.3	224.6	175.8	142.7
97.5°	96.6	136.2	213.5	372.8	626.8	839.4	867.9	761.2	574.3	452.8	347.9
100°	110.4	146.3	210.8	347.0	589.1	871.6	1052.9	1085.1	1010.6	902.9	772.2
102.5°	126.1	158.3	214.5	324.9	533.8	811.8	1062.1	1192.8	1208.5	1156.9	1086.1
105°	143.6	172.1	221.8	316.6	490.6	740.0	1004.1	1196.5	1288.6	1306.0	1282.1
107.5°	162.9	189.6	233.8	314.8	459.3	676.5	921.3	1141.3	1285.8	1357.6	1382.4
110°	182.2	208.0	249.4	319.4	442.7	624.0	844.0	1054.8	1224.1	1340.1	1404.5



TEST NUMBER: P832076

CATALOG NUMBER: S123RDIP-S340D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	202.5	227.3	265.1	328.6	433.5	589.1	776.8	969.2	1143.1	1276.6	1364.0
115°	222.7	247.6	282.6	338.7	432.6	566.0	725.3	895.5	1055.7	1191.0	1291.3
117.5°	243.0	266.0	301.0	351.6	433.5	550.4	691.2	838.5	980.2	1104.5	1208.5
120°	262.3	285.3	318.5	366.3	437.2	540.3	665.4	795.2	919.5	1029.9	1122.9
122.5°	279.8	304.7	336.9	380.1	443.6	533.8	644.3	761.2	870.7	971.0	1055.7
125°	297.3	322.1	354.4	394.8	450.1	528.3	626.8	731.7	832.0	920.4	994.0
127.5°	313.9	338.7	370.0	406.8	457.4	525.5	610.2	705.0	796.1	877.1	945.2
130°	328.6	353.4	383.8	418.8	464.8	522.8	597.3	680.2	763.0	837.6	900.1
132.5°	342.4	366.3	395.8	429.8	470.3	521.9	585.4	657.2	731.7	799.8	858.7
135°	354.4	379.2	407.7	439.0	475.8	520.9	575.2	636.9	702.3	762.1	814.5
137.5°	365.4	388.4	416.0	446.4	479.5	519.1	566.0	617.6	672.8	726.2	773.1
140°	374.6	397.6	424.3	451.9	483.2	518.2	557.8	601.0	648.0	692.1	731.7
142.5°	383.8	405.0	430.7	457.4	486.0	516.3	550.4	585.4	624.0	660.8	694.0
145°	391.2	412.3	436.3	461.1	486.9	514.5	544.0	573.4	603.8	633.2	659.9
147.5°	400.4	418.8	440.9	463.9	486.9	511.7	537.5	563.3	588.1	613.0	632.3
150°	407.7	424.3	445.5	464.8	486.9	508.1	531.1	552.2	573.4	592.7	610.2
152.5°	415.1	430.7	448.2	466.6	484.1	503.5	523.7	542.1	559.6	576.2	590.0
155°	423.4	436.3	451.9	466.6	482.3	497.9	516.3	532.0	546.7	560.5	571.6
157.5°	430.7	440.9	453.8	467.6	479.5	493.3	508.1	520.9	533.8	544.9	554.1
160°	436.3	445.5	456.5	467.6	477.7	487.8	499.8	511.7	521.9	531.1	537.5
162.5°	440.9	448.2	457.4	466.6	474.0	482.3	491.5	500.7	509.0	517.3	522.8
165°	444.6	451.0	458.4	464.8	470.3	476.8	484.1	491.5	497.0	503.5	508.1
167.5°	448.2	452.8	458.4	463.9	466.6	471.2	476.8	483.2	487.8	491.5	495.2
170°	451.0	452.8	457.4	461.1	463.0	465.7	470.3	474.9	477.7	481.4	483.2
172.5°	452.8	453.8	457.4	460.2	460.2	461.1	463.9	467.6	469.4	472.2	473.1
175°	453.8	454.7	456.5	458.4	457.4	457.4	459.3	461.1	462.0	463.9	463.9
177.5°	454.7	454.7	455.6	457.4	455.6	454.7	455.6	456.5	457.4	458.4	458.4
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7



TEST NUMBER: P832076

CATALOG NUMBER: S123RDIP-S340D1195U927-4F0-1E-UDD-G4

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°	25.8	26.7	27.6	26.7
92.5°	53.4	49.7	50.6	48.8
95°	125.2	116.9	110.4	106.8
97.5°	286.2	251.3	229.2	219.1
100°	679.3	612.1	576.2	577.1
102.5°	1018.9	969.2	940.6	914.0
105°	1239.8	1204.8	1175.3	1170.7
107.5°	1376.9	1360.3	1348.4	1338.3
110°	1430.3	1437.7	1435.8	1434.0



TEST NUMBER: P832076

CATALOG NUMBER: S123RDIP-S340D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	<i>1416.5</i>	<i>1443.2</i>	<i>1452.4</i>	<i>1453.3</i>
115°	1360.3	1400.8	1419.2	1423.8
117.5°	1280.3	1325.4	1353.0	1359.4
120°	1195.6	1247.1	1269.2	1274.7
122.5°	1118.3	1163.4	1188.2	1195.6
125°	1052.9	1093.4	1116.4	1122.9
127.5°	998.6	1033.6	1054.8	1060.3
130°	948.9	982.1	1001.4	1008.8
132.5°	903.8	937.0	953.5	958.1
135°	859.6	887.3	903.8	910.3
137.5°	811.8	840.3	854.1	859.6
140°	766.7	792.5	807.2	806.3
142.5°	722.5	744.6	757.5	756.6
145°	682.9	702.3	709.6	711.5
147.5°	650.7	664.5	671.9	672.8
150°	624.0	634.2	639.7	639.7
152.5°	600.1	609.3	612.1	612.1
155°	579.8	587.2	589.1	590.0
157.5°	561.4	567.0	568.8	568.8
160°	544.0	549.5	549.5	548.6
162.5°	526.5	531.1	531.1	530.1
165°	511.7	515.4	514.5	514.5
167.5°	497.0	499.8	498.9	498.9
170°	484.1	486.0	485.0	485.0
172.5°	473.1	474.9	473.1	472.2
175°	463.9	464.8	463.9	463.0
177.5°	457.4	458.4	456.5	456.5
180°	454.7	454.7	454.7	454.7



TEST NUMBER: P832076

CATALOG NUMBER: S123RDIP-S340D1195U927-4F0-1E-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	5.65	6.30	6.80	7.43	9.02	10.31	10.96	11.46	12.10	13.68
	3H	6.85	7.44	8.01	8.58	10.18	11.80	12.38	12.95	13.52	15.12
	4H	7.23	7.78	8.39	8.92	10.53	12.28	12.83	13.44	13.97	15.58
	6H	7.50	8.01	8.67	9.15	10.77	12.58	13.09	13.75	14.23	15.85
	8H	7.58	8.07	8.76	9.22	10.83	12.65	13.14	13.83	14.30	15.91
	12H	7.63	8.09	8.81	9.24	10.87	12.68	13.14	13.86	14.29	15.92
4H	2H	6.35	6.90	7.52	8.04	9.65	10.28	10.84	11.46	11.98	13.59
	3H	7.70	8.16	8.88	9.33	10.95	11.93	12.39	13.10	13.56	15.17
	4H	8.15	8.58	9.33	9.73	11.37	12.53	12.95	13.71	14.11	15.74
	6H	8.51	8.87	9.69	10.05	11.68	12.95	13.32	14.14	14.50	16.12
	8H	8.63	8.97	9.81	10.14	11.78	13.08	13.42	14.26	14.59	16.23
	12H	8.70	9.01	9.90	10.19	11.83	13.14	13.44	14.33	14.62	16.27
8H	4H	8.45	8.79	9.63	9.96	11.60	12.48	12.82	13.66	13.99	15.63
	6H	8.91	9.19	10.11	10.40	12.04	12.97	13.25	14.17	14.46	16.10
	8H	9.10	9.34	10.31	10.53	12.19	13.16	13.40	14.36	14.59	16.25
	12H	9.24	9.45	10.45	10.64	12.33	13.26	13.48	14.47	14.66	16.36
12H	4H	8.45	8.76	9.65	9.94	11.59	12.42	12.73	13.62	13.91	15.56
	6H	8.97	9.21	10.17	10.40	12.06	12.95	13.19	14.15	14.38	16.04
	8H	9.18	9.39	10.39	10.58	12.27	13.13	13.34	14.34	14.53	16.22