

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: P1031602

Luminaire Tested: S123DIW-B340D1320UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031602
REPORT IS A COMBINATION OF REPORTS P991300 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B340D1320UB40-4F0-XX-W2A-F1
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

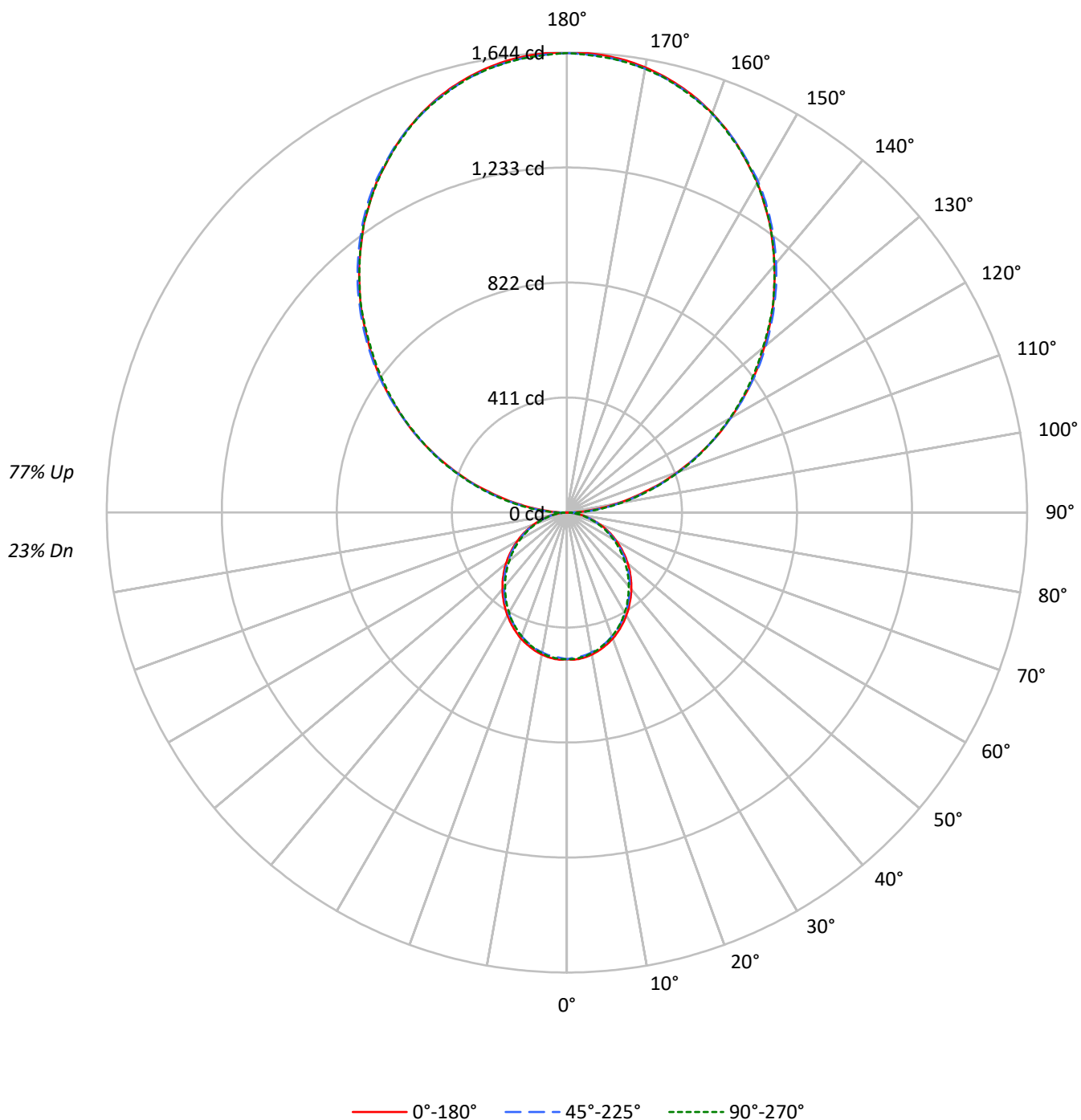
Lumens per Lamp: N/A
Luminaire Lumens: 5919.0 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 55.1
Input Voltage (V):
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: P1031602

CATALOG NUMBER: S123DIW-B340D1320UB40-4F0-XX-W2A-F1

Luminous Intensity Polar Plot



TEST NUMBER: P1031602

CATALOG NUMBER: S123DIW-B340D1320UB40-4F0-XX-W2A-F1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	101	101	101	101	89	89	89	89	68	68	68	49	49	49	31	31	31	31	31	23
1	92	88	84	80	81	78	75	72	60	58	56	43	42	41	28	27	26	26	26	19
2	83	76	71	66	74	68	63	59	52	49	46	38	36	34	24	23	22	22	22	16
3	76	67	60	54	67	60	54	49	46	42	39	33	31	29	22	20	19	19	19	14
4	69	59	52	46	61	53	46	41	41	36	33	30	27	24	19	18	16	16	16	12
5	64	53	45	39	56	47	40	35	36	32	28	26	23	21	17	15	14	14	14	10
6	58	47	39	34	52	42	35	31	33	28	24	24	21	18	16	14	12	12	12	9
7	54	42	35	29	48	38	31	27	29	25	21	22	18	16	14	12	11	11	11	8
8	50	38	31	26	44	34	28	23	27	22	19	20	17	14	13	11	10	10	10	7
9	46	35	27	23	41	31	25	21	24	20	17	18	15	13	12	10	9	9	9	6
10	43	32	25	20	38	28	22	18	22	18	15	17	13	11	11	9	8	8	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5646	5646	5646
5°	5659	5450	5442
10°	5610	5266	5212
15°	5531	5074	4961
20°	5442	4861	4713
25°	5326	4637	4446
30°	5200	4404	4166
35°	5066	4167	3888
40°	4928	3917	3615
45°	4775	3674	3329
50°	4620	3403	3043
55°	4421	3121	2752
60°	4216	2809	2443
65°	4022	2472	2121
70°	3746	2100	1745
75°	3344	1662	1355
80°	2888	1169	958
85°	2257	627	479

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4775 cd/sqm

TEST NUMBER: P1031602

CATALOG NUMBER: S123DIW-B340D1320UB40-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.4	0.8
10°-20°	139.6	2.4
20°-30°	206.2	3.5
30°-40°	240.8	4.1
40°-50°	242.1	4.1
50°-60°	212.7	3.6
60°-70°	158.4	2.7
70°-80°	90.1	1.5
80°-90°	29.1	0.5
90°-100°	105.7	1.8
100°-110°	320.0	5.4
110°-120°	544.7	9.2
120°-130°	716.6	12.1
130°-140°	805.5	13.6
140°-150°	791.9	13.4
150°-160°	666.7	11.3
160°-170°	443.9	7.5
170°-180°	155.4	2.6
0°-30°	395.3	6.7
0°-40°	636.1	10.7
0°-60°	1090.8	18.4
0°-90°	1368.4	23.1
90°-120°	970.4	16.4
90°-150°	3284.5	55.5
90°-180°	4551.0	76.9
0°-180°	5919.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	524	524	524	524	524	
5°	525	523	518	522	521	50
15°	500	498	492	496	493	141
25°	454	451	445	446	444	209
35°	392	390	384	381	379	245
45°	322	320	314	308	306	248
55°	244	244	238	233	230	219
65°	166	164	160	156	155	164
75°	88	86	85	82	81	94
85°	24	22	22	22	22	25
90°	1	14	31	36	39	7
95°	76	85	96	101	101	84
105°	290	293	304	304	307	311
115°	548	552	550	551	550	543
125°	802	806	804	799	793	716
135°	1041	1049	1048	1042	1040	802
145°	1263	1266	1270	1268	1263	789
155°	1446	1446	1448	1453	1444	666
165°	1575	1571	1571	1579	1570	444
175°	1638	1633	1633	1641	1632	156
180°	1642	1642	1642	1642	1642	

TEST NUMBER: P1031602

CATALOG NUMBER: S123DIW-B340D1320UB40-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	524.5	524.5	524.5	524.5	524.5
2.5°	526.7	524.9	520.0	524.5	524.0
5°	524.9	522.7	517.7	522.2	521.3
7.5°	520.9	518.6	513.7	517.7	517.3
10°	515.5	513.2	507.3	511.4	510.5
12.5°	508.2	506.4	501.0	503.7	503.3
15°	499.7	497.9	492.0	495.6	492.9
17.5°	490.2	488.0	482.1	484.8	483.9
20°	479.4	476.7	470.8	472.6	471.3
22.5°	467.2	464.5	458.6	460.0	458.2
25°	453.7	451.0	445.1	445.6	444.2
27.5°	439.7	437.0	430.7	431.1	429.8
30°	424.4	422.1	415.8	415.8	412.6
32.5°	409.0	405.9	401.4	398.2	396.9
35°	392.3	389.6	383.8	381.1	378.8
37.5°	375.7	372.1	366.2	363.0	361.7
40°	358.1	355.4	349.1	345.4	343.6
42.5°	340.5	337.3	331.0	327.4	325.6
45°	321.5	319.7	313.9	308.5	306.2
47.5°	303.1	300.3	294.9	289.5	287.7
50°	284.1	281.9	276.0	271.0	268.3
52.5°	264.3	262.9	256.6	252.5	249.8
55°	244.0	243.5	237.7	232.7	230.4
57.5°	225.0	223.2	218.7	214.2	211.5
60°	204.3	203.8	198.4	194.4	192.1
62.5°	185.8	184.4	179.0	175.0	173.6
65°	166.4	164.2	159.6	156.0	154.7
67.5°	145.7	143.9	140.3	137.1	135.3
70°	127.2	124.5	121.8	118.6	116.4
72.5°	107.8	106.0	102.8	100.1	99.2
75°	87.9	86.1	84.8	82.5	81.2
77.5°	70.4	69.5	67.6	65.8	65.8
80°	53.2	51.9	51.0	50.5	50.5
82.5°	36.5	36.5	36.5	35.6	35.2
85°	23.5	22.5	22.5	21.6	21.6
87.5°	11.7	10.4	9.9	9.5	9.5
90°	1.3	14.2	31.0	36.1	38.7
92.5°	38.7	46.4	54.2	58.1	55.5
95°	76.1	85.1	95.5	100.6	100.6
97.5°	125.1	131.6	139.3	145.8	144.5
100°	175.5	183.2	189.6	193.5	196.1
102.5°	233.5	237.4	246.4	250.3	249.0
105°	290.3	292.9	304.5	304.5	307.0
107.5°	357.4	358.6	363.8	367.7	366.4
110°	419.3	421.9	424.4	429.6	427.0

TEST NUMBER: P1031602

CATALOG NUMBER: S123DIW-B340D1320UB40-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	483.8	485.1	485.1	491.5	491.5
115°	548.3	552.2	549.6	550.9	549.6
117.5°	614.1	615.4	612.8	612.8	608.9
120°	674.7	682.5	676.0	674.7	672.1
122.5°	737.9	743.1	740.5	736.7	732.8
125°	802.4	806.3	803.7	798.6	793.4
127.5°	861.8	869.5	867.0	859.2	854.1
130°	921.1	931.5	927.6	922.4	913.4
132.5°	980.5	990.8	988.2	981.8	975.3
135°	1041.1	1048.9	1047.6	1042.4	1039.8
137.5°	1096.6	1103.0	1106.9	1100.5	1096.6
140°	1154.6	1161.1	1162.4	1161.1	1152.1
142.5°	1207.5	1214.0	1216.6	1215.3	1208.8
145°	1263.0	1265.6	1269.5	1268.2	1263.0
147.5°	1310.7	1315.9	1319.8	1319.8	1312.0
150°	1361.1	1363.6	1366.2	1366.2	1358.5
152.5°	1402.3	1406.2	1407.5	1410.1	1403.6
155°	1446.2	1446.2	1447.5	1452.7	1443.6
157.5°	1483.6	1482.3	1483.6	1488.8	1481.0
160°	1518.5	1515.9	1515.9	1522.3	1517.2
162.5°	1549.4	1545.5	1546.8	1553.3	1544.3
165°	1575.2	1571.3	1571.3	1579.1	1570.1
167.5°	1597.2	1592.0	1593.3	1601.0	1593.3
170°	1615.2	1610.1	1610.1	1619.1	1610.1
172.5°	1629.4	1624.2	1624.2	1632.0	1623.0
175°	1638.4	1633.3	1633.3	1641.0	1632.0
177.5°	1643.6	1638.4	1638.4	1646.2	1637.1
180°	1642.3	1642.3	1642.3	1642.3	1642.3

(END OF REPORT)