

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: P1031463

Luminaire Tested: S123DIW-B1165D1320UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031463
REPORT IS A COMBINATION OF REPORTS P990978 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1165D1320UB50-4F0-XX-W2A-F
Description: Define 3 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

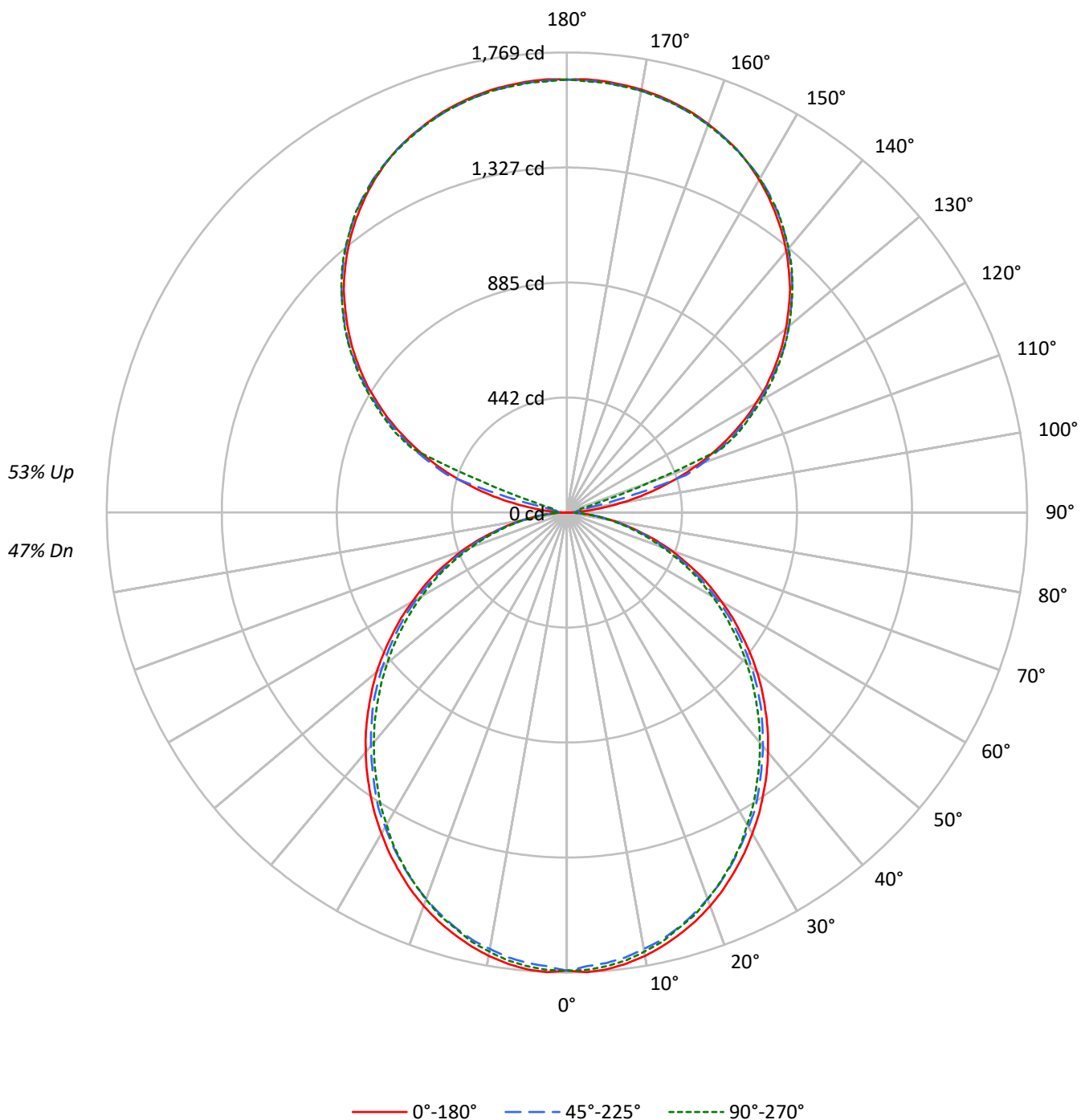
Lumens per Lamp: N/A
Luminaire Lumens: 9664.0 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 103.4
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: P1031463

CATALOG NUMBER: S123DIW-B1165D1320UB50-4F0-XX-W2A-F

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54
1	97	93	89	85	89	85	82	79	72	69	67	59	57	56	47	46	45
2	88	81	75	70	81	75	69	65	63	59	56	52	49	47	42	40	38
3	81	71	64	58	74	66	59	54	55	51	47	46	42	39	37	35	32
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28
5	68	56	48	42	62	52	45	39	44	38	34	37	32	29	30	27	24
6	62	50	42	36	57	47	39	34	40	34	30	33	29	26	27	24	21
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	21	19
8	53	41	33	28	49	38	31	26	33	27	23	27	23	20	23	19	17
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15
10	46	34	27	22	43	32	26	21	28	22	19	23	19	16	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18963	18963	18963
5°	19010	18309	18281
10°	18841	17689	17508
15°	18579	17045	16664
20°	18278	16330	15828
25°	17890	15574	14935
30°	17464	14793	13996
35°	17020	13994	13061
40°	16554	13157	12144
45°	16041	12340	11184
50°	15518	11431	10221
55°	14849	10482	9245
60°	14159	9436	8206
65°	13513	8305	7123
70°	12581	7050	5860
75°	11237	5583	4550
80°	9702	3924	3218
85°	7569	2108	1611

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 16041 cd/sqm

TEST NUMBER: P1031463

CATALOG NUMBER: S123DIW-B1165D1320UB50-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.1	1.7
10°-20°	469.0	4.9
20°-30°	692.6	7.2
30°-40°	808.9	8.4
40°-50°	813.2	8.4
50°-60°	714.4	7.4
60°-70°	532.0	5.5
70°-80°	302.8	3.1
80°-90°	89.4	0.9
90°-100°	58.7	0.6
100°-110°	283.9	2.9
110°-120°	695.6	7.2
120°-130°	883.1	9.1
130°-140°	943.4	9.8
140°-150°	882.1	9.1
150°-160°	711.5	7.4
160°-170°	459.2	4.8
170°-180°	158.2	1.6
0°-30°	1327.7	13.7
0°-40°	2136.6	22.1
0°-60°	3664.1	37.9
0°-90°	4588.3	47.5
90°-120°	1038.2	10.7
90°-150°	3746.7	38.8
90°-180°	5076.0	52.5
0°-180°	9664.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1762	1762	1762	1762	1762	
5°	1763	1756	1739	1754	1751	167
15°	1678	1672	1653	1665	1656	473
25°	1524	1515	1495	1497	1492	702
35°	1318	1309	1289	1280	1272	825
45°	1080	1074	1054	1036	1029	834
55°	820	818	798	782	774	734
65°	559	551	536	524	520	551
75°	295	289	285	277	273	316
85°	79	76	76	73	73	84
90°	1	14	30	35	37	10
95°	76	25	38	47	47	90
105°	369	382	271	52	54	391
115°	692	699	710	722	727	683
125°	975	985	990	992	994	871
135°	1213	1221	1226	1230	1226	934
145°	1400	1409	1411	1414	1414	877
155°	1542	1540	1541	1547	1540	711
165°	1627	1623	1622	1632	1623	460
175°	1665	1659	1660	1669	1659	158
180°	1665	1665	1665	1665	1665	

TEST NUMBER: P1031463

CATALOG NUMBER: S123DIW-B1165D1320UB50-4F0-XX-W2A-F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1761.7	1761.7	1761.7	1761.7	1761.7
2.5°	1769.3	1763.2	1746.6	1761.7	1760.2
5°	1763.2	1755.7	1739.0	1754.2	1751.1
7.5°	1749.6	1742.0	1725.4	1739.0	1737.5
10°	1731.4	1723.9	1704.2	1717.8	1714.8
12.5°	1707.2	1701.1	1683.0	1692.0	1690.5
15°	1678.4	1672.4	1652.7	1664.8	1655.7
17.5°	1646.6	1639.0	1619.3	1628.4	1625.4
20°	1610.2	1601.2	1581.5	1587.5	1583.0
22.5°	1569.3	1560.3	1540.6	1545.1	1539.1
25°	1523.9	1514.8	1495.1	1496.6	1492.1
27.5°	1476.9	1467.9	1446.6	1448.2	1443.6
30°	1425.4	1417.9	1396.7	1396.7	1386.1
32.5°	1373.9	1363.3	1348.2	1337.6	1333.0
35°	1317.9	1308.8	1289.1	1280.0	1272.4
37.5°	1261.8	1249.7	1230.0	1219.4	1214.9
40°	1202.8	1193.7	1172.5	1160.3	1154.3
42.5°	1143.7	1133.1	1111.9	1099.8	1093.7
45°	1080.1	1074.0	1054.3	1036.1	1028.6
47.5°	1018.0	1008.9	990.7	972.5	966.5
50°	954.3	946.8	927.1	910.4	901.3
52.5°	887.7	883.1	861.9	848.3	839.2
55°	819.5	818.0	798.3	781.6	774.1
57.5°	755.9	749.8	734.7	719.5	710.4
60°	686.2	684.7	666.5	652.9	645.3
62.5°	624.1	619.6	601.4	587.7	583.2
65°	559.0	551.4	536.2	524.1	519.6
67.5°	489.3	483.2	471.1	460.5	454.4
70°	427.2	418.1	409.0	398.4	390.8
72.5°	362.0	356.0	345.4	336.3	333.3
75°	295.4	289.3	284.8	277.2	272.7
77.5°	236.3	233.3	227.2	221.2	221.2
80°	178.7	174.2	171.2	169.7	169.7
82.5°	122.7	122.7	122.7	119.7	118.2
85°	78.8	75.7	75.7	72.7	72.7
87.5°	39.4	34.8	33.3	31.8	31.8
90°	1.2	13.6	29.7	34.6	37.1
92.5°	28.4	21.0	32.2	40.8	42.1
95°	75.5	24.7	38.3	47.0	47.0
97.5°	137.3	102.7	39.6	49.5	50.7
100°	209.0	233.8	40.8	50.7	52.0
102.5°	290.7	306.8	91.5	50.7	53.2
105°	368.6	382.2	270.9	52.0	54.4
107.5°	451.5	462.6	481.2	290.7	128.6
110°	534.4	544.3	557.9	517.0	340.2



TEST NUMBER: P1031463

CATALOG NUMBER: S123DIW-B1165D1320UB50-4F0-XX-W2A-F

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	613.5	622.2	635.8	646.9	644.4
115°	691.5	698.9	710.0	722.4	727.3
117.5°	768.1	776.8	783.0	792.9	794.1
120°	838.6	849.8	853.5	863.4	863.4
122.5°	910.4	919.1	924.0	930.2	931.4
125°	974.7	984.6	989.6	992.0	994.5
127.5°	1039.0	1048.9	1055.1	1058.8	1056.4
130°	1098.4	1108.3	1113.3	1118.2	1115.7
132.5°	1155.3	1165.2	1168.9	1173.9	1170.2
135°	1213.4	1220.9	1225.8	1229.5	1225.8
137.5°	1262.9	1272.8	1275.3	1281.5	1279.0
140°	1312.4	1319.8	1323.5	1328.5	1326.0
142.5°	1358.2	1365.6	1369.3	1373.0	1369.3
145°	1400.2	1408.9	1411.4	1413.8	1413.8
147.5°	1441.0	1447.2	1449.7	1452.2	1446.0
150°	1478.1	1481.9	1484.3	1486.8	1483.1
152.5°	1511.5	1512.8	1514.0	1519.0	1512.8
155°	1542.5	1540.0	1541.2	1547.4	1540.0
157.5°	1567.2	1567.2	1566.0	1573.4	1563.5
160°	1589.5	1588.2	1587.0	1594.4	1585.8
162.5°	1610.5	1606.8	1605.6	1614.2	1606.8
165°	1626.6	1622.9	1621.6	1631.5	1622.9
167.5°	1640.2	1635.2	1635.2	1645.1	1635.2
170°	1651.3	1646.4	1646.4	1656.3	1646.4
172.5°	1658.7	1652.6	1653.8	1663.7	1652.6
175°	1664.9	1658.7	1660.0	1668.6	1658.7
177.5°	1667.4	1661.2	1662.5	1672.3	1660.0
180°	1664.9	1664.9	1664.9	1664.9	1664.9

(END OF REPORT)