

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: P1032116

Luminaire Tested: S123RDIW-B1165D1320UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1032116
REPORT IS A COMBINATION OF REPORTS P994024 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDIW-B1165D1320UB50-4F0-XX-W2A-F
Description: Define 3 Regressed Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015}
{m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

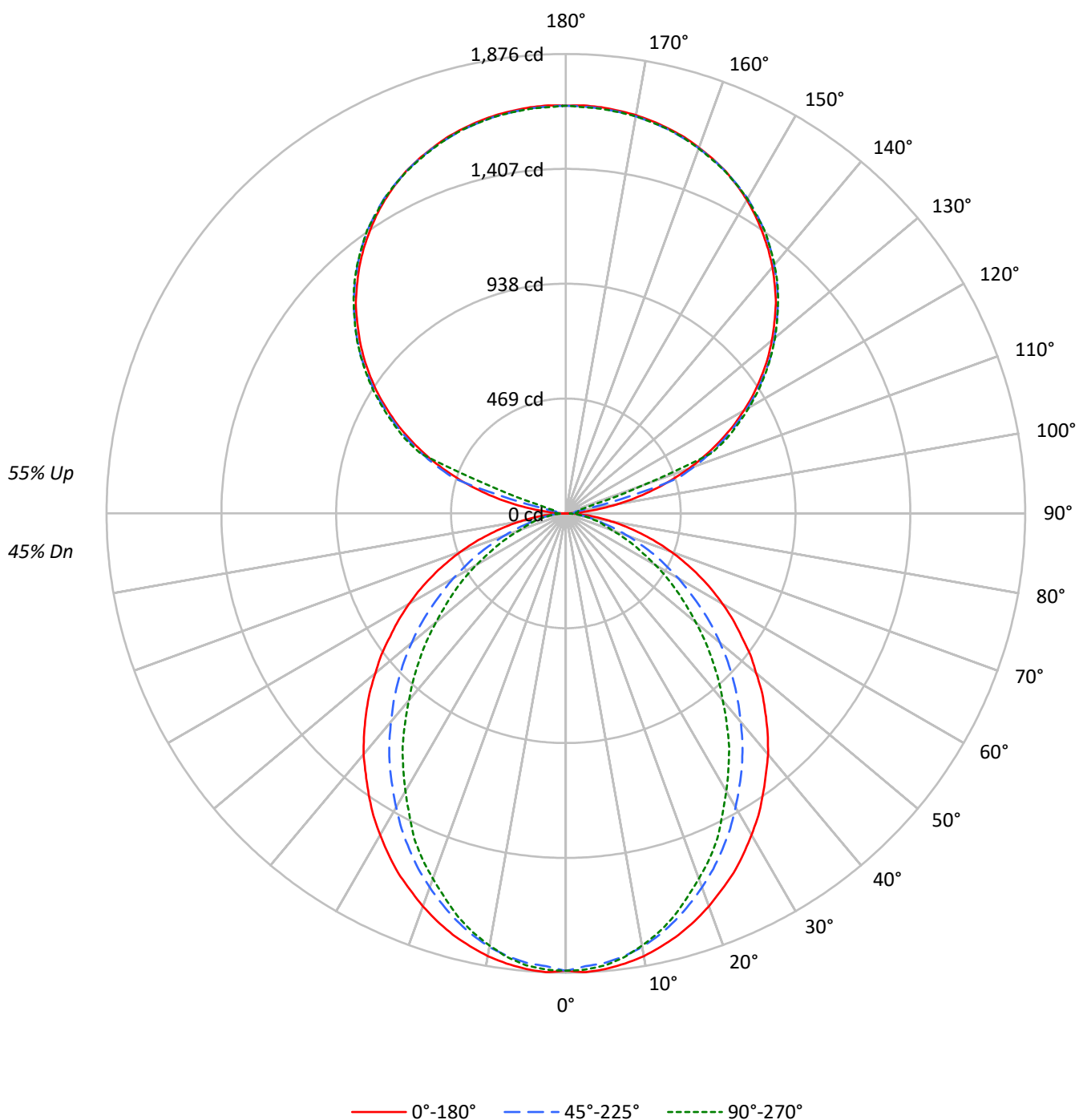
Lumens per Lamp: N/A
Luminaire Lumens: 9299.0 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52
1	97	93	89	86	89	85	82	79	71	69	67	58	57	55	46	45	44
2	89	81	75	71	81	75	70	66	63	59	56	52	49	47	41	39	38
3	81	72	65	59	74	66	60	55	56	51	47	46	43	40	37	34	33
4	74	64	56	50	68	59	52	47	50	44	40	41	37	34	33	30	28
5	68	57	49	43	62	53	46	40	44	39	35	37	33	30	30	27	25
6	63	51	43	37	58	47	40	35	40	35	31	33	29	26	27	24	22
7	58	46	38	33	53	43	36	31	36	31	27	30	26	23	25	22	20
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	18
9	50	38	31	26	46	36	29	25	30	25	22	26	22	19	21	18	16
10	47	35	28	23	43	33	26	22	28	23	20	24	20	17	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20106	20106	20106
5°	20139	19395	19343
10°	19980	18665	18298
15°	19721	17764	17154
20°	19381	16784	15875
25°	19030	15765	14664
30°	18581	14682	13231
35°	18116	13618	11928
40°	17681	12462	10487
45°	17122	11332	9191
50°	16505	10124	7851
55°	15865	8832	6623
60°	15255	7507	5376
65°	14465	6147	4195
70°	13473	4649	2999
75°	12043	3148	2376
80°	10282	2187	1667
85°	7713	1181	873

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 17122 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.6	1.9
10°-20°	488.5	5.3
20°-30°	703.3	7.6
30°-40°	792.1	8.5
40°-50°	757.6	8.1
50°-60°	620.2	6.7
60°-70°	418.1	4.5
70°-80°	209.7	2.3
80°-90°	58.2	0.6
90°-100°	58.7	0.6
100°-110°	283.9	3.1
110°-120°	695.6	7.5
120°-130°	883.1	9.5
130°-140°	943.4	10.1
140°-150°	882.1	9.5
150°-160°	711.5	7.7
160°-170°	459.2	4.9
170°-180°	158.2	1.7
0°-30°	1367.4	14.7
0°-40°	2159.5	23.2
0°-60°	3537.3	38.0
0°-90°	4223.3	45.4
90°-120°	1038.2	11.2
90°-150°	3746.7	40.3
90°-180°	5076.0	54.6
0°-180°	9299.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1868	1868	1868	1868	1868	
5°	1868	1860	1842	1856	1853	177
15°	1782	1765	1722	1715	1704	502
25°	1621	1583	1513	1482	1465	746
35°	1403	1348	1254	1189	1162	878
45°	1153	1085	968	882	845	890
55°	876	801	673	585	554	785
65°	598	515	397	323	306	592
75°	317	244	161	145	142	337
85°	80	47	42	39	39	88
90°	1	14	30	35	37	9
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1867.9	1867.9	1867.9	1867.9	1867.9
2.5°	1875.5	1869.5	1851.3	1867.9	1864.9
5°	1867.9	1860.4	1842.2	1855.8	1852.8
7.5°	1854.3	1846.7	1824.0	1833.1	1828.5
10°	1836.1	1825.5	1798.2	1799.8	1792.2
12.5°	1810.4	1798.2	1763.4	1761.9	1752.8
15°	1781.6	1764.9	1722.5	1714.9	1704.3
17.5°	1746.7	1728.6	1675.5	1660.4	1645.2
20°	1707.4	1683.1	1625.5	1605.8	1587.7
22.5°	1663.4	1634.6	1572.5	1546.8	1530.1
25°	1621.0	1583.1	1513.4	1481.6	1465.0
27.5°	1569.5	1528.6	1452.8	1410.4	1384.7
30°	1516.5	1471.0	1386.2	1334.7	1310.4
32.5°	1463.4	1410.4	1319.5	1262.0	1236.2
35°	1402.8	1348.3	1254.4	1189.2	1162.0
37.5°	1342.2	1283.2	1184.7	1112.0	1078.6
40°	1284.7	1218.0	1110.5	1031.7	996.8
42.5°	1219.5	1152.9	1040.8	952.9	922.6
45°	1152.9	1084.7	968.1	881.7	845.3
47.5°	1087.7	1012.0	896.9	802.9	771.1
50°	1015.0	943.8	821.1	727.2	692.3
52.5°	949.9	871.1	749.9	651.4	621.1
55°	875.6	801.4	672.6	584.8	554.5
57.5°	809.0	728.7	598.4	515.1	489.3
60°	739.3	656.0	530.2	448.4	422.7
62.5°	669.6	586.3	460.5	384.8	357.5
65°	598.4	515.1	396.9	322.7	306.0
67.5°	527.2	442.4	327.2	271.2	253.0
70°	457.5	375.7	269.7	216.6	200.0
72.5°	387.8	307.5	213.6	172.7	168.2
75°	316.6	243.9	160.6	145.4	142.4
77.5°	251.5	184.8	125.7	116.7	113.6
80°	189.4	127.3	95.4	90.9	87.9
82.5°	130.3	78.8	68.2	63.6	63.6
85°	80.3	47.0	42.4	39.4	39.4
87.5°	36.4	19.7	19.7	18.2	16.7
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



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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)