

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: P1031438

Luminaire Tested: S123DIW-B1165D1320UB27-4F0-XX-W2A-D1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031438
REPORT IS A COMBINATION OF REPORTS P990919 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1165D1320UB27-4F0-XX-W2A-D1
Description: Define 3 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

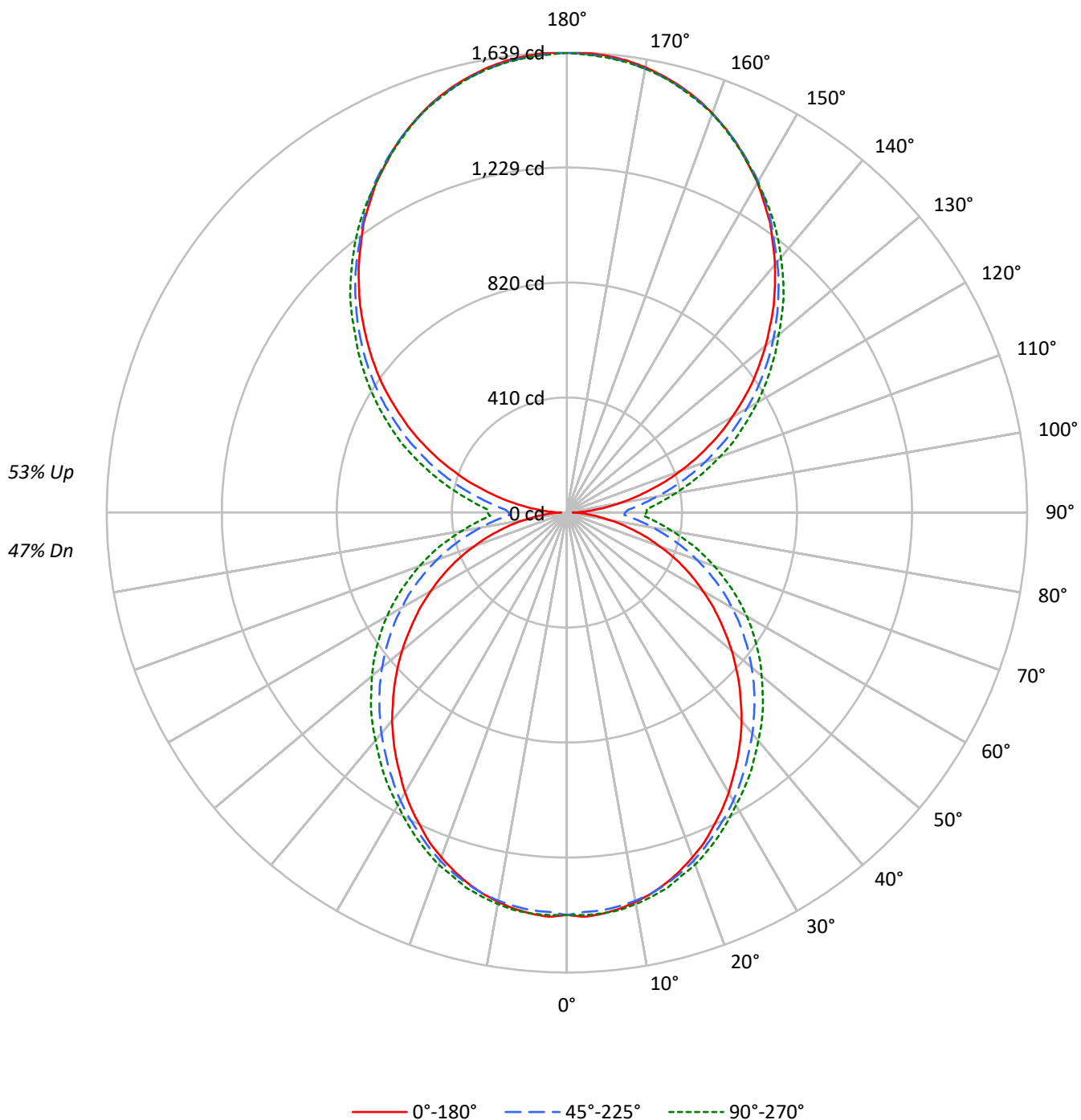
Lumens per Lamp: N/A
Luminaire Lumens: 9360.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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
RCR																	
0	106	106	106	106	98	98	98	98	82	82	82		67	67	67		54
1	96	91	87	83	88	84	80	77	70	68	65		57	56	54		46
2	87	79	73	67	80	73	67	62	61	57	53		50	47	44		40
3	79	69	62	56	72	64	57	52	53	48	44		44	40	37		35
4	72	61	53	47	66	56	49	44	47	42	37		39	35	31		31
5	66	54	46	40	61	50	43	37	42	36	32		35	30	27		28
6	61	49	40	34	56	45	38	32	38	32	28		31	27	23		25
7	56	44	36	30	52	41	33	28	34	29	24		28	24	21		23
8	52	40	32	26	48	37	30	25	31	26	22		26	22	18		21
9	49	36	29	23	45	34	27	22	29	23	19		24	20	16		19
10	45	33	26	21	42	31	24	20	26	21	17		22	18	15		18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15434	15434	15434
5°	15477	14982	14969
10°	15332	14576	14464
15°	15129	14128	13929
20°	14841	13628	13354
25°	14487	13066	12758
30°	14123	12556	12160
35°	13716	12022	11673
40°	13328	11534	11158
45°	12898	11061	10734
50°	12471	10593	10273
55°	12000	10112	9850
60°	11539	9621	9416
65°	11064	9096	8908
70°	10348	8509	8384
75°	9449	7839	7845
80°	8393	7161	7228
85°	7348	6611	6785

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12898 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	1.5
10°-20°	387.8	4.1
20°-30°	579.9	6.2
30°-40°	692.3	7.4
40°-50°	724.4	7.7
50°-60°	679.8	7.3
60°-70°	567.8	6.1
70°-80°	406.0	4.3
80°-90°	245.0	2.6
90°-100°	257.2	2.7
100°-110°	430.6	4.6
110°-120°	617.7	6.6
120°-130°	757.1	8.1
130°-140°	822.3	8.8
140°-150°	793.6	8.5
150°-160°	664.8	7.1
160°-170°	442.6	4.7
170°-180°	155.0	1.7
0°-30°	1103.7	11.8
0°-40°	1796.0	19.2
0°-60°	3200.1	34.2
0°-90°	4419.0	47.2
90°-120°	1305.6	13.9
90°-150°	3678.6	39.3
90°-180°	4941.0	52.8
0°-180°	9360.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1434	1434	1434	1434	1434	
5°	1436	1432	1423	1436	1434	136
15°	1367	1371	1370	1386	1384	385
25°	1234	1250	1254	1275	1275	569
35°	1062	1087	1107	1131	1137	664
45°	868	906	945	975	987	670
55°	662	714	770	812	825	593
65°	458	519	587	634	650	452
75°	248	322	400	451	470	265
85°	76	155	237	290	306	79
90°	22	111	207	266	284	20
95°	93	163	250	303	319	97
105°	302	342	421	464	481	322
115°	554	577	631	670	681	549
125°	805	809	851	879	885	718
135°	1041	1048	1063	1086	1092	802
145°	1261	1262	1266	1277	1278	787
155°	1442	1442	1443	1448	1440	664
165°	1571	1567	1567	1575	1566	443
175°	1634	1629	1629	1636	1627	155
180°	1638	1638	1638	1638	1638	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1433.9	1433.9	1433.9	1433.9	1433.9
2.5°	1441.7	1437.0	1424.5	1437.0	1435.5
5°	1435.5	1432.3	1423.0	1435.5	1433.9
7.5°	1424.5	1424.5	1415.1	1430.8	1429.2
10°	1408.9	1412.0	1404.2	1419.8	1416.7
12.5°	1390.2	1394.8	1390.2	1404.2	1401.1
15°	1366.7	1371.4	1369.9	1385.5	1383.9
17.5°	1338.6	1348.0	1346.4	1360.5	1357.4
20°	1307.4	1316.7	1319.9	1333.9	1335.5
22.5°	1274.6	1283.9	1288.6	1307.4	1305.8
25°	1234.0	1249.6	1254.3	1274.6	1274.6
27.5°	1194.9	1212.1	1221.5	1238.6	1240.2
30°	1152.7	1173.0	1185.5	1204.3	1204.3
32.5°	1105.9	1129.3	1146.5	1166.8	1171.5
35°	1062.1	1087.1	1107.4	1130.9	1137.1
37.5°	1015.3	1043.4	1066.8	1093.4	1098.1
40°	968.4	996.5	1027.8	1054.3	1060.6
42.5°	916.9	952.8	985.6	1015.3	1024.7
45°	868.5	905.9	945.0	974.7	987.2
47.5°	816.9	859.1	902.8	935.6	945.0
50°	766.9	810.7	859.1	895.0	905.9
52.5°	713.8	760.7	815.4	852.8	866.9
55°	662.3	713.8	770.1	812.2	824.7
57.5°	612.3	665.4	726.3	768.5	782.5
60°	559.2	615.4	679.5	723.2	740.4
62.5°	509.2	567.0	635.7	679.5	695.1
65°	457.7	518.6	587.3	634.2	649.8
67.5°	406.1	470.2	538.9	590.4	602.9
70°	351.4	418.6	493.6	543.6	559.2
72.5°	301.5	368.6	446.7	498.3	513.9
75°	248.4	321.8	399.9	451.4	470.2
77.5°	203.1	276.5	354.6	409.2	423.3
80°	154.6	231.2	312.4	365.5	381.1
82.5°	112.5	190.6	273.3	326.5	342.1
85°	76.5	154.6	237.4	290.5	306.1
87.5°	46.9	125.0	204.6	257.7	273.3
90°	21.6	111.0	207.4	265.6	283.8
92.5°	57.3	132.2	218.0	273.5	284.9
95°	93.1	163.0	249.8	303.4	319.0
97.5°	140.4	203.1	284.2	337.5	351.8
100°	189.1	246.7	325.0	374.2	392.3
102.5°	245.3	292.9	372.2	419.9	434.2
105°	301.9	342.0	420.7	464.5	481.1
107.5°	367.2	401.3	470.6	516.5	529.3
110°	427.5	458.2	523.2	569.0	578.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	491.8	514.9	574.3	619.7	633.8
115°	554.5	577.2	630.8	669.6	680.8
117.5°	620.1	633.9	684.5	722.0	730.6
120°	679.0	694.6	739.7	774.3	782.7
122.5°	742.0	750.4	796.2	826.7	833.8
125°	804.9	808.7	851.4	879.1	884.9
127.5°	864.0	870.1	906.7	930.2	935.9
130°	923.2	931.9	959.3	983.8	984.2
132.5°	980.8	991.1	1012.0	1033.7	1038.1
135°	1041.2	1047.5	1063.3	1086.3	1091.6
137.5°	1096.6	1101.5	1116.3	1134.8	1138.8
140°	1152.9	1159.4	1165.3	1187.5	1186.3
142.5°	1205.7	1210.5	1213.1	1232.1	1233.5
145°	1261.0	1262.0	1265.8	1277.1	1278.1
147.5°	1307.0	1312.2	1316.0	1320.7	1319.2
150°	1357.2	1359.7	1362.3	1362.3	1357.7
152.5°	1398.3	1402.2	1403.5	1406.1	1399.6
155°	1442.1	1442.1	1443.4	1448.5	1439.5
157.5°	1479.4	1478.1	1479.4	1484.5	1476.8
160°	1514.1	1511.5	1511.5	1518.0	1512.8
162.5°	1545.0	1541.1	1542.4	1548.9	1539.8
165°	1570.7	1566.9	1566.9	1574.6	1565.6
167.5°	1592.6	1587.4	1588.7	1596.5	1588.7
170°	1610.6	1605.5	1605.5	1614.5	1605.5
172.5°	1624.8	1619.6	1619.6	1627.3	1618.3
175°	1633.8	1628.6	1628.6	1636.3	1627.3
177.5°	1638.9	1633.8	1633.8	1641.5	1632.5
180°	1637.6	1637.6	1637.6	1637.6	1637.6

(END OF REPORT)