

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: P1031437

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

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031437
REPORT IS A COMBINATION OF REPORTS P990918 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-D
Description: Define 3 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

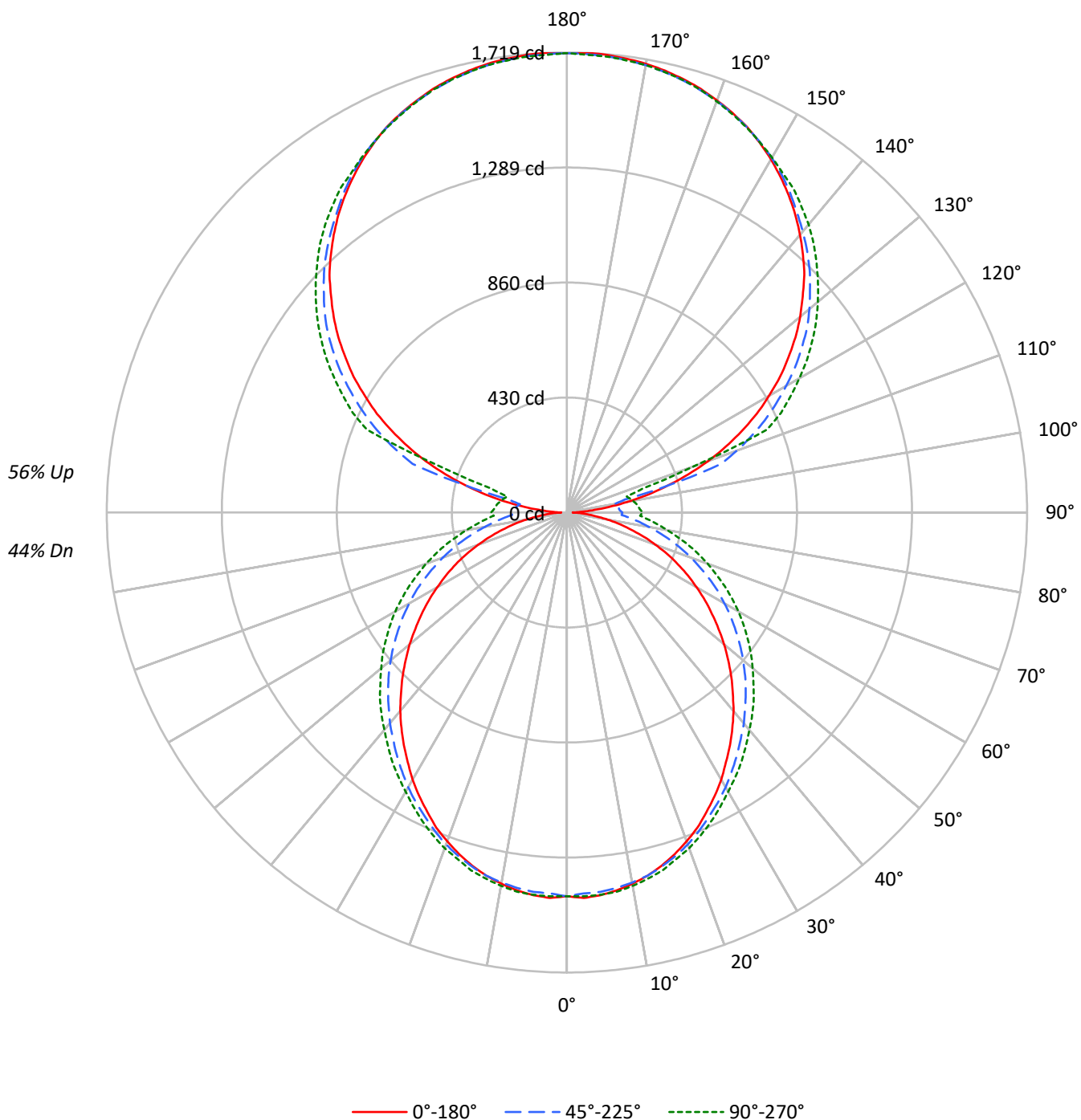
Lumens per Lamp: N/A
Luminaire Lumens: 10056.0 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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

TEST NUMBER: P1031437

CATALOG NUMBER: S123DIW-B1165D1320UB27-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P1031437

CATALOG NUMBER: S123DIW-B1165D1320UB27-4F0-XX-W2A-D

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	80	80	80	65	65	65	51	51	51
1	96	91	87	83	87	83	79	76	69	66	64	55	54	52	43	42	41
2	87	79	72	67	79	72	67	62	60	56	52	48	45	43	37	35	34
3	79	69	61	55	72	63	57	51	52	47	43	42	39	36	33	30	28
4	72	61	53	46	65	56	49	43	46	41	37	37	33	30	29	26	24
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	26	23	21
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	24	21	18
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	22	19	16
8	52	39	32	26	47	36	29	24	30	25	21	25	21	18	20	17	14
9	48	36	28	23	44	33	26	22	28	23	19	23	19	16	18	15	13
10	45	33	26	21	41	30	24	19	26	20	17	21	17	14	17	14	12

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

TEST NUMBER: P1031437

CATALOG NUMBER: S123DIW-B1165D1320UB27-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	1.4
10°-20°	387.8	3.9
20°-30°	579.9	5.8
30°-40°	692.3	6.9
40°-50°	724.4	7.2
50°-60°	679.8	6.8
60°-70°	567.8	5.6
70°-80°	406.0	4.0
80°-90°	245.0	2.4
90°-100°	212.4	2.1
100°-110°	404.3	4.0
110°-120°	791.7	7.9
120°-130°	953.0	9.5
130°-140°	991.8	9.9
140°-150°	913.6	9.1
150°-160°	733.7	7.3
160°-170°	473.5	4.7
170°-180°	163.2	1.6
0°-30°	1103.7	11.0
0°-40°	1796.0	17.9
0°-60°	3200.1	31.8
0°-90°	4419.0	43.9
90°-120°	1408.4	14.0
90°-150°	4266.7	42.4
90°-180°	5637.0	56.1
0°-180°	10056.0	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	265	284	19
95°	95	104	194	252	267	106
105°	393	444	396	214	231	416
115°	721	747	815	865	883	712
125°	1010	1020	1070	1106	1119	903
135°	1254	1260	1283	1315	1319	966
145°	1445	1453	1455	1470	1476	905
155°	1590	1588	1589	1596	1588	733
165°	1677	1673	1672	1682	1673	474
175°	1717	1710	1712	1720	1710	163
180°	1717	1717	1717	1717	1717	

TEST NUMBER: P1031437

CATALOG NUMBER: S123DIW-B1165D1320UB27-4F0-XX-W2A-D

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	110.8	207.1	265.3	283.5
92.5°	48.0	107.6	197.2	257.7	273.0
95°	95.0	103.6	194.1	251.6	267.2
97.5°	157.2	177.8	186.1	243.1	260.0
100°	229.6	305.1	178.0	233.5	250.4
102.5°	312.2	372.5	220.9	222.6	240.7
105°	392.6	444.1	396.4	214.5	231.0
107.5°	476.4	520.7	603.9	449.6	296.6
110°	560.4	598.7	675.2	673.7	503.8

TEST NUMBER: P1031437

CATALOG NUMBER: S123DIW-B1165D1320UB27-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	642.0	672.7	746.2	796.6	808.2
115°	720.8	747.2	814.9	865.1	882.7
117.5°	799.8	821.3	880.7	928.4	942.2
120°	870.9	890.3	945.6	991.7	1002.7
122.5°	944.9	957.0	1010.5	1051.3	1063.5
125°	1009.7	1019.9	1070.3	1105.7	1119.1
127.5°	1076.1	1084.7	1130.1	1165.2	1173.5
130°	1137.3	1145.9	1182.3	1217.0	1223.8
132.5°	1194.3	1204.6	1231.9	1265.1	1272.2
135°	1254.3	1260.4	1282.6	1314.7	1318.6
137.5°	1305.3	1314.0	1327.5	1358.8	1364.1
140°	1354.8	1362.5	1370.9	1399.5	1404.8
142.5°	1402.0	1408.1	1411.9	1436.0	1440.0
145°	1445.4	1452.7	1455.3	1470.3	1476.5
147.5°	1485.9	1492.2	1494.8	1502.0	1501.9
150°	1524.1	1528.0	1530.5	1533.1	1532.3
152.5°	1558.6	1559.8	1561.1	1566.2	1559.8
155°	1590.5	1587.9	1589.2	1595.6	1587.9
157.5°	1616.0	1616.0	1614.7	1622.3	1612.1
160°	1638.9	1637.6	1636.4	1644.0	1635.1
162.5°	1660.6	1656.8	1655.5	1664.4	1656.8
165°	1677.2	1673.4	1672.1	1682.3	1673.4
167.5°	1691.2	1686.1	1686.1	1696.3	1686.1
170°	1702.7	1697.6	1697.6	1707.8	1697.6
172.5°	1710.3	1704.0	1705.2	1715.4	1704.0
175°	1716.7	1710.3	1711.6	1720.5	1710.3
177.5°	1719.3	1712.9	1714.2	1724.4	1711.6
180°	1716.7	1716.7	1716.7	1716.7	1716.7

(END OF REPORT)