

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: P1031455

Luminaire Tested: S123DIW-B1165D1320UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031455
REPORT IS A COMBINATION OF REPORTS P990966 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1165D1320UB40-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

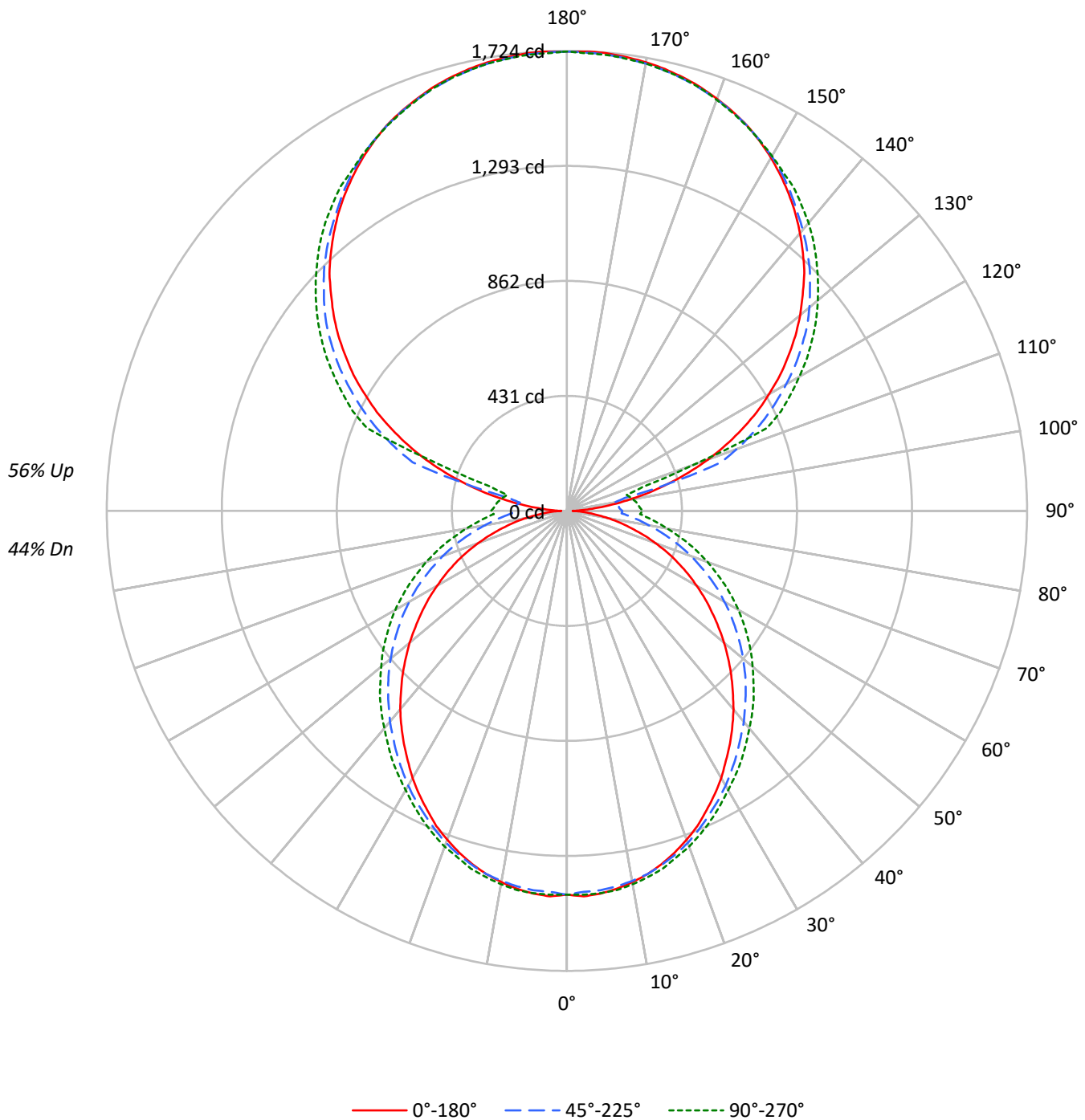
Lumens per Lamp: N/A
Luminaire Lumens: 10085.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	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°	15480	15480	15480
5°	15521	15025	15013
10°	15376	14618	14506
15°	15173	14168	13969
20°	14884	13668	13393
25°	14528	13103	12795
30°	14165	12593	12195
35°	13756	12058	11706
40°	13366	11567	11190
45°	12935	11093	10764
50°	12508	10623	10303
55°	12035	10141	9878
60°	11572	9647	9442
65°	11096	9122	8934
70°	10381	8533	8408
75°	9476	7861	7866
80°	8420	7181	7248
85°	7377	6630	6805

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12935 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	1.4
10°-20°	388.9	3.9
20°-30°	581.6	5.8
30°-40°	694.4	6.9
40°-50°	726.5	7.2
50°-60°	681.7	6.8
60°-70°	569.4	5.6
70°-80°	407.2	4.0
80°-90°	245.7	2.4
90°-100°	213.0	2.1
100°-110°	405.4	4.0
110°-120°	794.0	7.9
120°-130°	955.8	9.5
130°-140°	994.6	9.9
140°-150°	916.2	9.1
150°-160°	735.8	7.3
160°-170°	474.8	4.7
170°-180°	163.6	1.6
0°-30°	1106.9	11.0
0°-40°	1801.2	17.9
0°-60°	3209.4	31.8
0°-90°	4431.8	43.9
90°-120°	1412.4	14.0
90°-150°	4279.0	42.4
90°-180°	5653.0	56.1
0°-180°	10085.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1438	1438	1438	1438	1438	
5°	1440	1436	1427	1440	1438	137
15°	1371	1375	1374	1390	1388	386
25°	1238	1253	1258	1278	1278	570
35°	1065	1090	1111	1134	1140	666
45°	871	909	948	978	990	672
55°	664	716	772	815	827	595
65°	459	520	589	636	652	454
75°	249	323	401	453	472	266
85°	77	155	238	291	307	79
90°	22	111	208	266	284	19
95°	95	104	195	252	268	107
105°	394	445	398	215	232	417
115°	723	749	817	868	885	714
125°	1013	1023	1073	1109	1122	905
135°	1258	1264	1286	1318	1322	969
145°	1450	1457	1459	1474	1481	907
155°	1595	1592	1594	1600	1592	735
165°	1682	1678	1677	1687	1678	475
175°	1722	1715	1716	1726	1715	164
180°	1722	1722	1722	1722	1722	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1438.1	1438.1	1438.1	1438.1	1438.1
2.5°	1445.9	1441.2	1428.7	1441.2	1439.6
5°	1439.6	1436.5	1427.1	1439.6	1438.1
7.5°	1428.7	1428.7	1419.3	1434.9	1433.4
10°	1413.0	1416.1	1408.3	1424.0	1420.8
12.5°	1394.2	1398.9	1394.2	1408.3	1405.2
15°	1370.7	1375.4	1373.8	1389.5	1387.9
17.5°	1342.5	1351.9	1350.3	1364.4	1361.3
20°	1311.2	1320.6	1323.7	1337.8	1339.4
22.5°	1278.3	1287.7	1292.4	1311.2	1309.6
25°	1237.5	1253.2	1257.9	1278.3	1278.3
27.5°	1198.4	1215.6	1225.0	1242.2	1243.8
30°	1156.1	1176.5	1189.0	1207.8	1207.8
32.5°	1109.1	1132.6	1149.8	1170.2	1174.9
35°	1065.2	1090.3	1110.7	1134.2	1140.4
37.5°	1018.2	1046.4	1069.9	1096.6	1101.3
40°	971.2	999.4	1030.8	1057.4	1063.7
42.5°	919.5	955.6	988.5	1018.2	1027.6
45°	871.0	908.6	947.7	977.5	990.0
47.5°	819.3	861.6	905.4	938.3	947.7
50°	769.2	813.0	861.6	897.6	908.6
52.5°	715.9	762.9	817.7	855.3	869.4
55°	664.2	715.9	772.3	814.6	827.1
57.5°	614.1	667.3	728.4	770.7	784.8
60°	560.8	617.2	681.4	725.3	742.5
62.5°	510.7	568.6	637.6	681.4	697.1
65°	459.0	520.1	589.0	636.0	651.7
67.5°	407.3	471.5	540.4	592.1	604.7
70°	352.5	419.8	495.0	545.1	560.8
72.5°	302.3	369.7	448.0	499.7	515.4
75°	249.1	322.7	401.0	452.7	471.5
77.5°	203.6	277.3	355.6	410.4	424.5
80°	155.1	231.8	313.3	366.6	382.2
82.5°	112.8	191.1	274.1	327.4	343.1
85°	76.8	155.1	238.1	291.4	307.0
87.5°	47.0	125.3	205.2	258.5	274.1
90°	21.7	111.2	207.7	266.1	284.3
92.5°	48.2	107.9	197.8	258.4	273.8
95°	95.2	103.9	194.8	252.2	267.9
97.5°	157.7	178.3	186.6	243.9	260.7
100°	230.3	305.9	178.5	234.1	251.1
102.5°	313.1	373.6	221.6	223.1	241.4
105°	393.7	445.3	397.6	215.1	231.7
107.5°	477.9	522.3	605.7	451.0	297.5
110°	562.0	600.4	677.2	675.7	505.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	643.8	674.7	748.3	799.0	810.5
115°	722.8	749.3	817.2	867.6	885.3
117.5°	802.1	823.7	883.3	931.1	945.0
120°	873.5	892.8	948.4	994.6	1005.6
122.5°	947.7	959.8	1013.5	1054.3	1066.5
125°	1012.6	1022.8	1073.4	1108.8	1122.4
127.5°	1079.1	1087.8	1133.4	1168.5	1176.9
130°	1140.5	1149.2	1185.7	1220.5	1227.3
132.5°	1197.8	1208.0	1235.3	1268.6	1275.8
135°	1257.9	1264.0	1286.4	1318.4	1322.4
137.5°	1309.0	1317.8	1331.2	1362.7	1368.0
140°	1358.7	1366.4	1374.9	1403.5	1408.8
142.5°	1406.0	1412.1	1415.9	1440.2	1444.1
145°	1449.5	1456.9	1459.4	1474.5	1480.8
147.5°	1490.1	1496.5	1499.1	1506.3	1506.2
150°	1528.5	1532.3	1534.9	1537.5	1536.7
152.5°	1563.0	1564.3	1565.6	1570.7	1564.3
155°	1595.0	1592.5	1593.7	1600.1	1592.5
157.5°	1620.6	1620.6	1619.3	1627.0	1616.8
160°	1643.6	1642.3	1641.1	1648.7	1639.8
162.5°	1665.4	1661.5	1660.2	1669.2	1661.5
165°	1682.0	1678.2	1676.9	1687.1	1678.2
167.5°	1696.1	1690.9	1690.9	1701.2	1690.9
170°	1707.6	1702.5	1702.5	1712.7	1702.5
172.5°	1715.2	1708.8	1710.1	1720.4	1708.8
175°	1721.6	1715.2	1716.5	1725.5	1715.2
177.5°	1724.2	1717.8	1719.1	1729.3	1716.5
180°	1721.6	1721.6	1721.6	1721.6	1721.6

(END OF REPORT)