

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: P1031449

Luminaire Tested: S123DIW-B1165D1320UB35-4F0-XX-W2A-D

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031449
REPORT IS A COMBINATION OF REPORTS P990957 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1165D1320UB35-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

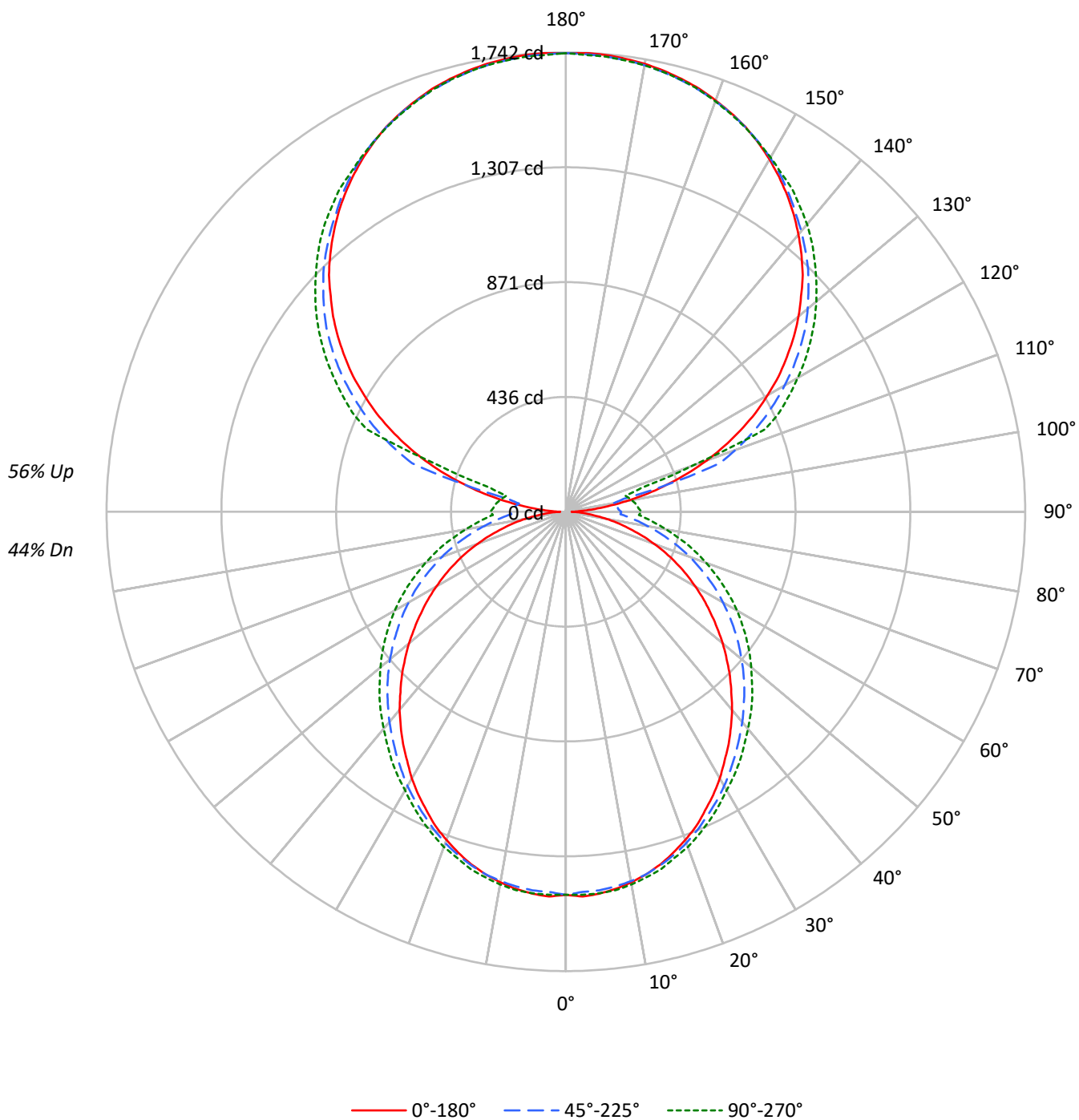
Lumens per Lamp: N/A
Luminaire Lumens: 10186.0 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	95	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°	15632	15632	15632
5°	15675	15174	15162
10°	15529	14763	14650
15°	15323	14310	14108
20°	15032	13803	13526
25°	14672	13234	12922
30°	14306	12718	12317
35°	13893	12177	11822
40°	13500	11682	11301
45°	13063	11204	10872
50°	12632	10728	10406
55°	12154	10242	9976
60°	11687	9744	9537
65°	11204	9214	9022
70°	10484	8617	8492
75°	9567	7939	7945
80°	8502	7252	7320
85°	7444	6697	6873

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13063 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.8	1.4
10°-20°	392.8	3.9
20°-30°	587.3	5.8
30°-40°	701.2	6.9
40°-50°	733.7	7.2
50°-60°	688.5	6.8
60°-70°	575.1	5.6
70°-80°	411.2	4.0
80°-90°	248.2	2.4
90°-100°	215.1	2.1
100°-110°	409.5	4.0
110°-120°	802.0	7.9
120°-130°	965.4	9.5
130°-140°	1004.7	9.9
140°-150°	925.4	9.1
150°-160°	743.2	7.3
160°-170°	479.6	4.7
170°-180°	165.3	1.6
0°-30°	1117.9	11.0
0°-40°	1819.1	17.9
0°-60°	3241.3	31.8
0°-90°	4475.8	43.9
90°-120°	1426.6	14.0
90°-150°	4322.1	42.4
90°-180°	5710.0	56.1
0°-180°	10186.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1452	1452	1452	1452	1452	
5°	1454	1451	1441	1454	1452	138
15°	1384	1389	1388	1403	1402	390
25°	1250	1266	1270	1291	1291	576
35°	1076	1101	1122	1145	1152	673
45°	880	918	957	987	1000	678
55°	671	723	780	823	835	601
65°	464	525	595	642	658	458
75°	252	326	405	457	476	269
85°	78	157	240	294	310	80
90°	22	112	210	269	287	19
95°	96	105	197	255	271	108
105°	398	450	402	217	234	421
115°	730	757	825	876	894	722
125°	1023	1033	1084	1120	1134	914
135°	1271	1277	1299	1332	1336	978
145°	1464	1472	1474	1489	1496	916
155°	1611	1608	1610	1616	1608	742
165°	1699	1695	1694	1704	1695	480
175°	1739	1733	1734	1743	1733	166
180°	1739	1739	1739	1739	1739	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1452.3	1452.3	1452.3	1452.3	1452.3
2.5°	1460.3	1455.5	1442.8	1455.5	1453.9
5°	1453.9	1450.8	1441.3	1453.9	1452.3
7.5°	1442.8	1442.8	1433.4	1449.2	1447.6
10°	1427.0	1430.2	1422.3	1438.1	1434.9
12.5°	1408.0	1412.8	1408.0	1422.3	1419.1
15°	1384.3	1389.1	1387.5	1403.3	1401.7
17.5°	1355.8	1365.3	1363.7	1378.0	1374.8
20°	1324.2	1333.7	1336.8	1351.1	1352.7
22.5°	1291.0	1300.5	1305.2	1324.2	1322.6
25°	1249.8	1265.7	1270.4	1291.0	1291.0
27.5°	1210.3	1227.7	1237.2	1254.6	1256.2
30°	1167.6	1188.1	1200.8	1219.8	1219.8
32.5°	1120.1	1143.8	1161.2	1181.8	1186.6
35°	1075.8	1101.1	1121.7	1145.4	1151.7
37.5°	1028.3	1056.8	1080.6	1107.4	1112.2
40°	980.9	1009.4	1041.0	1067.9	1074.2
42.5°	928.7	965.1	998.3	1028.3	1037.8
45°	879.6	917.6	957.2	987.2	999.9
47.5°	827.4	870.1	914.4	947.7	957.2
50°	776.8	821.1	870.1	906.5	917.6
52.5°	723.0	770.5	825.8	863.8	878.0
55°	670.8	723.0	780.0	822.7	835.3
57.5°	620.2	674.0	735.7	778.4	792.6
60°	566.4	623.3	688.2	732.5	749.9
62.5°	515.8	574.3	643.9	688.2	704.0
65°	463.5	525.2	594.9	642.3	658.1
67.5°	411.3	476.2	545.8	598.0	610.7
70°	356.0	424.0	499.9	550.6	566.4
72.5°	305.3	373.4	452.5	504.7	520.5
75°	251.5	325.9	405.0	457.2	476.2
77.5°	205.7	280.0	359.1	414.5	428.7
80°	156.6	234.1	316.4	370.2	386.0
82.5°	113.9	193.0	276.9	330.7	346.5
85°	77.5	156.6	240.5	294.3	310.1
87.5°	47.5	126.6	207.3	261.0	276.9
90°	21.9	112.3	209.8	268.8	287.2
92.5°	48.7	109.0	199.7	260.9	276.5
95°	96.2	104.9	196.7	254.8	270.6
97.5°	159.2	180.0	188.4	246.3	263.4
100°	232.5	309.1	180.2	236.5	253.6
102.5°	316.3	377.4	223.7	225.4	243.9
105°	397.7	449.8	401.6	217.3	234.0
107.5°	482.7	527.5	611.8	455.5	300.5
110°	567.6	606.5	684.0	682.4	510.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	650.3	681.5	755.9	807.0	818.7
115°	730.1	756.9	825.4	876.3	894.2
117.5°	810.2	832.0	892.2	940.5	954.5
120°	882.3	901.8	957.9	1004.6	1015.7
122.5°	957.2	969.4	1023.6	1064.9	1077.3
125°	1022.8	1033.1	1084.2	1120.0	1133.7
127.5°	1090.0	1098.8	1144.8	1180.3	1188.8
130°	1152.0	1160.8	1197.6	1232.9	1239.8
132.5°	1209.9	1220.3	1247.8	1281.5	1288.6
135°	1270.6	1276.8	1299.4	1331.7	1335.8
137.5°	1322.3	1331.1	1344.7	1376.5	1381.8
140°	1372.4	1380.1	1388.7	1417.7	1423.0
142.5°	1420.2	1426.4	1430.2	1454.7	1458.7
145°	1464.1	1471.6	1474.2	1489.4	1495.7
147.5°	1505.2	1511.6	1514.2	1521.5	1521.4
150°	1543.9	1547.8	1550.4	1553.0	1552.3
152.5°	1578.8	1580.1	1581.4	1586.6	1580.1
155°	1611.1	1608.5	1609.8	1616.3	1608.5
157.5°	1636.9	1636.9	1635.7	1643.4	1633.1
160°	1660.2	1658.9	1657.6	1665.4	1656.3
162.5°	1682.2	1678.3	1677.0	1686.0	1678.3
165°	1699.0	1695.1	1693.8	1704.1	1695.1
167.5°	1713.2	1708.0	1708.0	1718.3	1708.0
170°	1724.8	1719.6	1719.6	1730.0	1719.6
172.5°	1732.6	1726.1	1727.4	1737.7	1726.1
175°	1739.0	1732.6	1733.8	1742.9	1732.6
177.5°	1741.6	1735.1	1736.4	1746.8	1733.8
180°	1739.0	1739.0	1739.0	1739.0	1739.0

(END OF REPORT)