

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: P1033174

Luminaire Tested: S124DIW-B1020D1560UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033174
REPORT IS A COMBINATION OF REPORTS P996814 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1560UB50-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

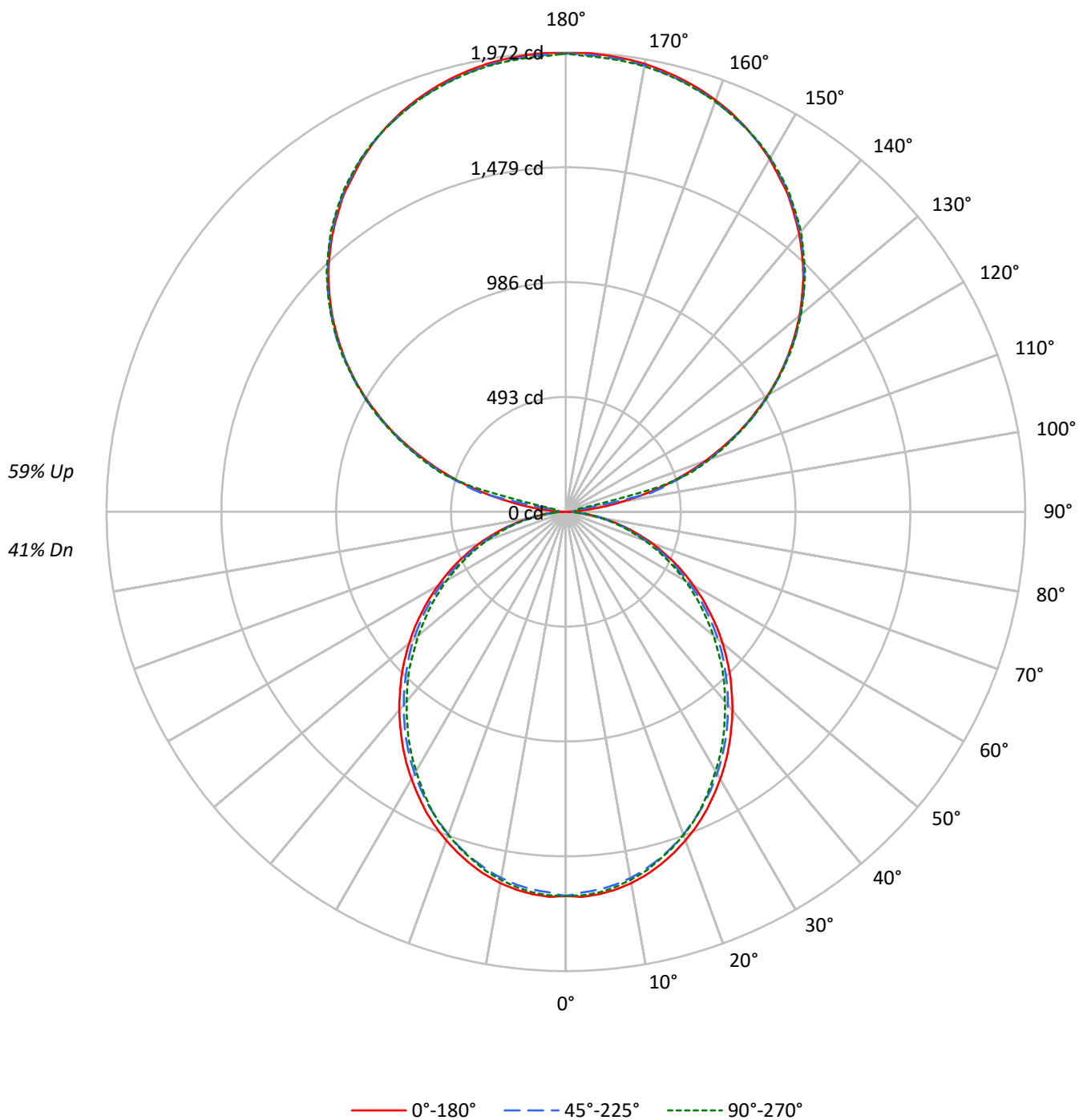
Lumens per Lamp: N/A
Luminaire Lumens: 10324.0 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 99
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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48
1	96	91	88	84	87	83	80	77	69	66	64	55	53	52	42	41	40
2	87	80	74	69	79	73	68	63	60	56	53	48	46	43	37	35	34
3	79	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25
5	67	55	47	41	61	51	44	38	42	37	33	34	30	27	26	24	22
6	61	49	41	36	56	45	38	33	38	32	28	31	27	24	24	21	19
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17
8	53	40	33	28	48	37	30	26	31	26	22	25	22	19	20	17	15
9	49	37	29	24	45	34	27	23	29	23	20	23	20	17	19	16	14
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13448	13448	13448
5°	13460	13062	13078
10°	13345	12698	12610
15°	13154	12268	12082
20°	12910	11802	11537
25°	12635	11309	10949
30°	12302	10776	10304
35°	11959	10230	9681
40°	11601	9644	9017
45°	11225	9055	8397
50°	10810	8485	7710
55°	10358	7818	7028
60°	9895	7088	6318
65°	9365	6335	5518
70°	8757	5427	4659
75°	7844	4374	3732
80°	6683	3162	2626
85°	5196	1760	1413

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11225 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.4	1.5
10°-20°	437.9	4.2
20°-30°	644.5	6.2
30°-40°	749.2	7.3
40°-50°	749.1	7.3
50°-60°	655.2	6.3
60°-70°	486.5	4.7
70°-80°	276.0	2.7
80°-90°	83.1	0.8
90°-100°	65.3	0.6
100°-110°	430.0	4.2
110°-120°	821.2	8.0
120°-130°	1042.4	10.1
130°-140°	1115.2	10.8
140°-150°	1042.8	10.1
150°-160°	840.9	8.1
160°-170°	542.3	5.3
170°-180°	186.9	1.8
0°-30°	1237.9	12.0
0°-40°	1987.1	19.2
0°-60°	3391.5	32.9
0°-90°	4237.1	41.0
90°-120°	1316.5	12.8
90°-150°	4516.8	43.8
90°-180°	6087.0	59.0
0°-180°	10324.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1648	1643	1628	1643	1640	156
15°	1569	1563	1544	1551	1547	442
25°	1421	1411	1393	1394	1389	654
35°	1222	1213	1195	1185	1179	764
45°	998	988	967	953	949	769
55°	755	751	732	716	708	676
65°	511	505	492	478	472	506
75°	272	266	259	254	252	289
85°	71	71	69	69	67	77
90°	4	21	32	41	44	9
95°	81	31	32	41	43	100
105°	443	452	459	472	419	463
115°	827	831	830	833	833	814
125°	1162	1168	1165	1170	1171	1038
135°	1442	1440	1446	1449	1452	1111
145°	1663	1667	1667	1668	1671	1039
155°	1823	1824	1820	1826	1822	841
165°	1923	1916	1916	1927	1914	543
175°	1967	1958	1960	1973	1955	187
180°	1967	1967	1967	1967	1967	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1649.2	1649.2	1649.2	1649.2	1649.2
2.5°	1654.5	1650.5	1636.0	1649.2	1647.9
5°	1647.9	1642.6	1628.1	1642.6	1640.0
7.5°	1636.0	1630.7	1614.8	1626.7	1625.4
10°	1618.8	1613.5	1596.3	1606.9	1604.3
12.5°	1596.3	1591.1	1572.6	1584.5	1580.5
15°	1568.6	1563.3	1543.5	1551.4	1547.4
17.5°	1536.9	1530.3	1511.8	1517.1	1514.4
20°	1501.2	1494.6	1474.8	1478.7	1476.1
22.5°	1462.9	1453.6	1433.8	1441.7	1436.4
25°	1420.6	1411.3	1392.8	1394.2	1388.9
27.5°	1373.0	1363.8	1346.6	1343.9	1337.3
30°	1325.4	1314.9	1297.7	1292.4	1285.8
32.5°	1275.2	1266.0	1247.5	1240.9	1234.3
35°	1222.4	1213.1	1194.6	1185.4	1178.8
37.5°	1166.9	1158.9	1139.1	1129.9	1120.6
40°	1112.7	1102.1	1082.3	1069.1	1062.5
42.5°	1054.5	1049.3	1026.8	1010.9	1007.0
45°	997.7	988.5	967.3	952.8	948.8
47.5°	938.2	931.6	911.8	896.0	885.4
50°	877.5	872.2	853.7	835.2	827.2
52.5°	818.0	811.4	791.6	775.7	765.1
55°	754.6	750.6	732.1	716.2	708.3
57.5°	695.1	691.1	672.6	656.8	648.8
60°	633.0	626.4	609.2	597.3	590.7
62.5°	572.2	566.9	548.4	537.8	531.2
65°	511.4	504.8	491.6	478.4	471.8
67.5°	449.3	444.0	430.8	417.6	416.3
70°	392.5	383.2	372.7	362.1	358.1
72.5°	331.7	322.4	314.5	306.6	302.6
75°	272.2	265.6	259.0	253.7	252.4
77.5°	214.1	211.4	204.8	203.5	199.5
80°	162.5	158.6	155.9	153.3	152.0
82.5°	112.3	111.0	111.0	109.7	108.4
85°	71.4	71.4	68.7	68.7	67.4
87.5°	34.4	33.0	31.7	31.7	31.7
90°	4.4	20.6	32.4	41.2	44.1
92.5°	22.1	19.1	30.9	39.7	39.7
95°	80.9	30.9	32.4	41.2	42.7
97.5°	154.5	186.9	32.4	39.7	41.2
100°	241.3	267.8	64.7	39.7	41.2
102.5°	338.4	356.1	373.7	42.7	42.7
105°	442.9	451.7	459.0	472.3	419.3
107.5°	538.5	542.9	553.2	560.6	566.4
110°	635.6	640.0	648.8	651.8	656.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	729.8	738.6	741.5	740.1	745.9
115°	826.9	831.3	829.8	832.7	832.7
117.5°	913.7	919.6	924.0	922.5	922.5
120°	1001.9	1007.8	1006.4	1009.3	1006.4
122.5°	1084.3	1087.3	1090.2	1091.7	1088.8
125°	1162.3	1168.2	1165.3	1169.7	1171.1
127.5°	1237.4	1238.8	1246.2	1244.7	1243.2
130°	1309.4	1310.9	1315.3	1316.8	1316.8
132.5°	1375.7	1378.6	1384.5	1386.0	1384.5
135°	1441.9	1440.4	1446.3	1449.2	1452.2
137.5°	1500.7	1500.7	1508.1	1511.0	1509.5
140°	1558.1	1561.0	1564.0	1568.4	1569.9
142.5°	1609.6	1615.5	1616.9	1619.9	1619.9
145°	1662.6	1667.0	1667.0	1668.4	1671.4
147.5°	1703.8	1712.6	1711.1	1712.6	1714.1
150°	1749.4	1755.2	1753.8	1753.8	1755.2
152.5°	1787.6	1792.0	1789.1	1792.0	1790.6
155°	1822.9	1824.4	1820.0	1825.9	1821.5
157.5°	1853.8	1853.8	1847.9	1855.3	1847.9
160°	1880.3	1875.9	1874.4	1883.2	1874.4
162.5°	1903.8	1898.0	1896.5	1905.3	1895.0
165°	1923.0	1915.6	1915.6	1927.4	1914.1
167.5°	1939.2	1931.8	1930.3	1943.6	1928.9
170°	1952.4	1943.6	1945.0	1956.8	1942.1
172.5°	1961.2	1952.4	1953.9	1965.6	1949.5
175°	1967.1	1958.3	1959.8	1973.0	1955.3
177.5°	1971.5	1961.2	1964.2	1975.9	1958.3
180°	1967.1	1967.1	1967.1	1967.1	1967.1

(END OF REPORT)