

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: P1033145

Luminaire Tested: S124DIW-B1020D1340UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033145
REPORT IS A COMBINATION OF REPORTS P996745 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1340UB50-4F0-XX-W2A-D
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

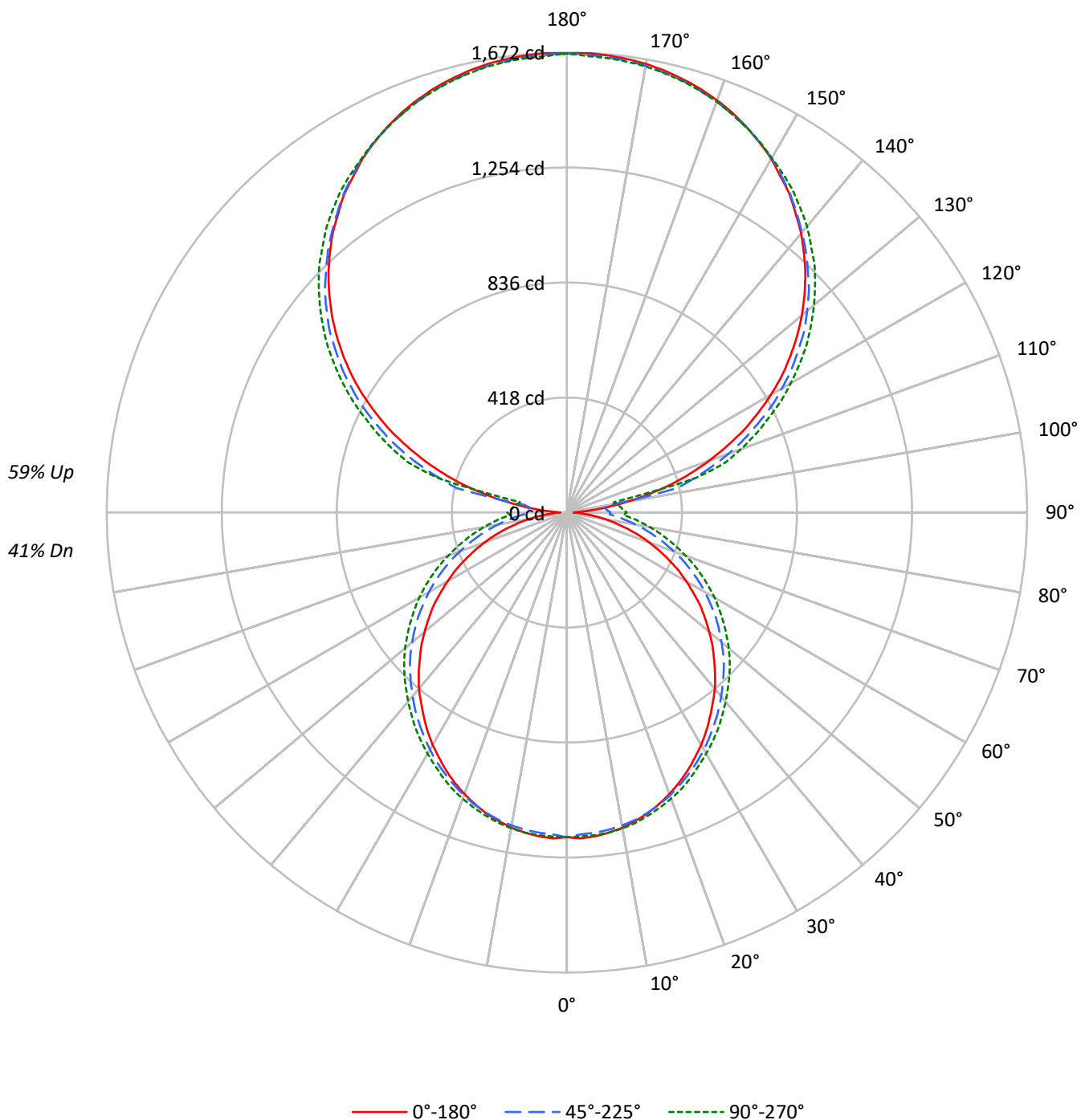
Lumens per Lamp: N/A
Luminaire Lumens: 9188.0 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 88.9
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	47	47	47
1	95	90	86	82	86	82	79	75	67	65	62	53	52	50	41	39	38
2	86	78	72	67	78	71	66	61	58	54	51	46	44	41	35	33	32
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	29	27
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	25	22	20
6	60	48	40	34	54	44	37	31	36	31	27	29	25	22	22	19	17
7	55	43	35	29	50	40	32	27	33	27	23	26	22	19	20	17	15
8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	19	16	13
9	48	36	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12
10	45	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9622	9622	9622
5°	9649	9371	9388
10°	9586	9187	9160
15°	9496	8980	8904
20°	9363	8755	8654
25°	9213	8507	8386
30°	9052	8262	8112
35°	8868	8012	7867
40°	8720	7771	7614
45°	8503	7545	7391
50°	8318	7289	7155
55°	8126	7042	6883
60°	7829	6734	6628
65°	7501	6402	6320
70°	7103	6023	5965
75°	6550	5602	5627
80°	5923	5172	5272
85°	5094	4741	4985

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8503 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	1.2
10°-20°	320.3	3.5
20°-30°	484.4	5.3
30°-40°	586.0	6.4
40°-50°	619.5	6.7
50°-60°	583.0	6.3
60°-70°	483.8	5.3
70°-80°	339.5	3.7
80°-90°	194.8	2.1
90°-100°	169.3	1.8
100°-110°	449.0	4.9
110°-120°	752.9	8.2
120°-130°	915.8	10.0
130°-140°	959.4	10.4
140°-150°	887.0	9.7
150°-160°	713.1	7.8
160°-170°	459.9	5.0
170°-180°	158.5	1.7
0°-30°	916.5	10.0
0°-40°	1502.5	16.4
0°-60°	2705.0	29.4
0°-90°	3723.1	40.5
90°-120°	1371.3	14.9
90°-150°	4133.5	45.0
90°-180°	5465.0	59.5
0°-180°	9188.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1181	1177	1168	1179	1177	112
15°	1132	1134	1130	1142	1140	319
25°	1036	1044	1048	1062	1064	477
35°	906	922	936	954	958	568
45°	756	781	806	828	835	584
55°	592	620	659	686	694	528
65°	410	452	497	530	540	406
75°	227	276	332	369	381	241
85°	70	126	185	225	238	73
90°	25	92	158	204	217	18
95°	86	87	142	186	199	98
105°	387	421	476	521	486	406
115°	709	725	766	797	806	699
125°	991	995	1025	1054	1063	885
135°	1225	1224	1238	1262	1272	945
145°	1411	1414	1414	1423	1430	882
155°	1546	1547	1543	1548	1544	713
165°	1631	1624	1624	1634	1623	461
175°	1668	1661	1662	1673	1658	159
180°	1668	1668	1668	1668	1668	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.0	1180.0	1180.0	1180.0	1180.0
2.5°	1185.3	1181.3	1170.7	1180.0	1178.6
5°	1181.3	1177.3	1168.1	1178.6	1177.3
7.5°	1173.4	1170.7	1162.8	1174.7	1173.4
10°	1162.8	1161.5	1154.9	1166.8	1165.4
12.5°	1148.3	1148.3	1144.3	1154.9	1154.9
15°	1132.4	1133.7	1129.8	1141.7	1140.3
17.5°	1111.3	1115.2	1113.9	1125.8	1124.5
20°	1088.8	1092.8	1094.1	1107.3	1107.3
22.5°	1063.7	1069.0	1071.6	1084.8	1087.5
25°	1035.9	1043.9	1047.8	1062.4	1063.7
27.5°	1005.6	1017.4	1022.7	1035.9	1037.3
30°	975.2	985.7	995.0	1009.5	1012.2
32.5°	942.1	955.3	965.9	983.1	985.7
35°	906.4	922.3	935.5	954.0	958.0
37.5°	870.8	889.3	905.1	923.6	927.6
40°	836.4	853.6	872.1	891.9	897.2
42.5°	796.8	816.6	839.1	861.5	865.5
45°	755.8	780.9	806.0	828.5	835.1
47.5°	717.5	742.6	771.7	794.1	802.1
50°	675.2	704.3	733.4	759.8	767.7
52.5°	632.9	662.0	696.4	722.8	730.7
55°	592.0	619.7	659.4	685.8	693.7
57.5°	545.7	580.1	618.4	650.1	656.7
60°	500.8	535.1	578.8	609.1	619.7
62.5°	457.2	495.5	539.1	569.5	580.1
65°	409.6	451.9	496.8	529.9	540.4
67.5°	364.7	409.6	457.2	490.2	500.8
70°	318.4	363.4	413.6	449.3	458.5
72.5°	273.5	319.8	373.9	408.3	418.9
75°	227.3	276.2	331.7	368.7	380.6
77.5°	183.7	235.2	293.3	330.3	343.6
80°	144.0	196.9	255.0	294.7	305.2
82.5°	104.4	159.9	218.0	259.0	270.9
85°	70.0	125.5	185.0	224.6	237.8
87.5°	43.6	97.8	155.9	194.2	206.1
90°	24.8	91.5	158.2	204.0	217.1
92.5°	38.5	82.3	149.1	193.6	204.2
95°	85.8	87.0	142.4	185.5	198.7
97.5°	146.9	212.6	135.8	176.4	189.5
100°	219.1	276.0	155.3	169.8	180.2
102.5°	301.5	345.5	410.7	164.4	174.9
105°	387.4	421.3	476.5	520.7	486.4
107.5°	468.5	494.8	549.7	588.9	603.2
110°	549.6	571.8	625.5	658.4	672.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	628.0	651.4	697.5	725.3	740.9
115°	709.1	724.7	765.8	797.3	806.5
117.5°	782.7	795.7	839.0	865.5	876.1
120°	856.2	865.2	902.3	931.2	939.3
122.5°	926.1	928.6	966.8	994.4	1001.2
125°	990.9	994.6	1025.1	1054.0	1063.1
127.5°	1054.5	1054.5	1087.1	1109.7	1117.6
130°	1114.4	1114.2	1139.2	1164.2	1172.1
132.5°	1170.5	1171.6	1192.5	1216.3	1222.9
135°	1225.3	1224.0	1238.3	1261.9	1272.4
137.5°	1275.2	1273.9	1285.4	1307.7	1313.0
140°	1323.8	1325.0	1328.8	1349.8	1357.6
142.5°	1366.2	1371.2	1371.1	1388.1	1393.4
145°	1411.1	1413.5	1413.5	1422.7	1430.5
147.5°	1446.0	1452.2	1451.0	1453.5	1460.1
150°	1484.7	1488.4	1487.2	1487.2	1488.4
152.5°	1515.8	1519.6	1517.1	1519.6	1518.3
155°	1545.8	1547.0	1543.3	1548.3	1544.5
157.5°	1572.0	1572.0	1567.0	1573.2	1567.0
160°	1594.4	1590.7	1589.5	1596.9	1589.5
162.5°	1614.4	1609.4	1608.2	1615.7	1606.9
165°	1630.6	1624.4	1624.4	1634.4	1623.1
167.5°	1644.4	1638.1	1636.9	1648.1	1635.6
170°	1655.6	1648.1	1649.3	1659.3	1646.8
172.5°	1663.1	1655.6	1656.8	1666.8	1653.1
175°	1668.1	1660.6	1661.8	1673.0	1658.1
177.5°	1671.8	1663.1	1665.6	1675.5	1660.6
180°	1668.1	1668.1	1668.1	1668.1	1668.1

(END OF REPORT)