

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: P1033205

Luminaire Tested: S124DIW-B1020D470UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033205
REPORT IS A COMBINATION OF REPORTS P996881 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D470UB50-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

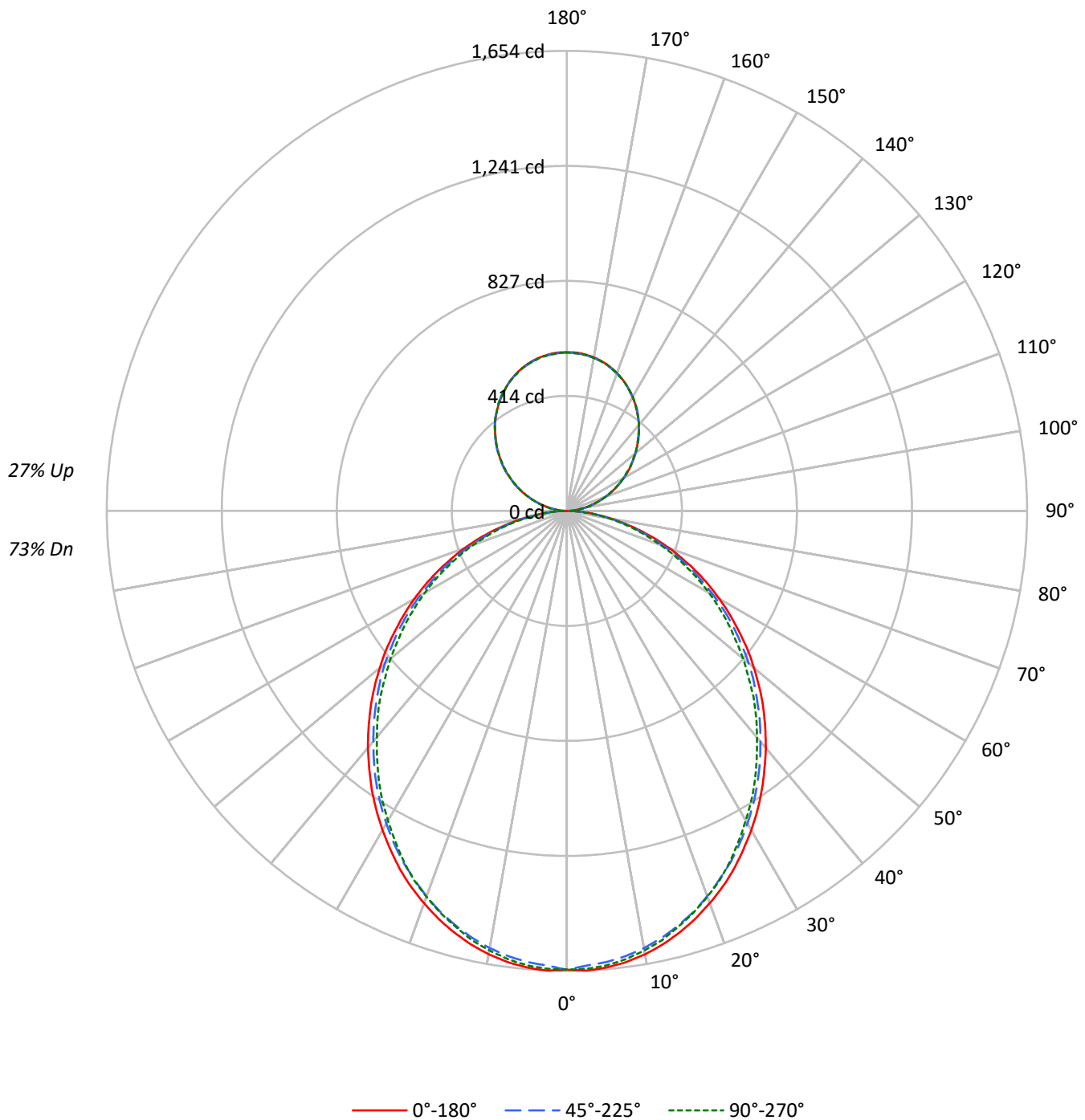
Lumens per Lamp: N/A
Luminaire Lumens: 5815.0 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 60
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: P1033205

CATALOG NUMBER: S124DIW-B1020D470UB50-4F0-XX-W2A-F1

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	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77
1	103	98	94	91	97	93	90	87	84	82	79	76	74	72	68	67	65
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55
3	85	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47
4	78	67	59	52	74	64	56	51	58	52	47	53	48	44	47	44	40
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35
6	66	54	45	39	63	51	44	38	47	40	36	43	37	33	39	34	31
7	62	49	40	35	58	47	39	34	43	36	32	39	34	30	36	31	28
8	57	44	36	31	54	43	35	30	39	33	28	36	30	26	33	28	25
9	53	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	22
10	50	37	30	25	47	36	29	24	33	27	23	31	25	22	28	24	20

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

TEST NUMBER: P1033205

CATALOG NUMBER: S124DIW-B1020D470UB50-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.4	2.7
10°-20°	437.9	7.5
20°-30°	644.5	11.1
30°-40°	749.2	12.9
40°-50°	749.1	12.9
50°-60°	655.2	11.3
60°-70°	486.5	8.4
70°-80°	276.0	4.7
80°-90°	80.3	1.4
90°-100°	37.1	0.6
100°-110°	111.2	1.9
110°-120°	189.0	3.2
120°-130°	249.2	4.3
130°-140°	279.9	4.8
140°-150°	275.1	4.7
150°-160°	231.4	4.0
160°-170°	153.9	2.6
170°-180°	53.9	0.9
0°-30°	1237.9	21.3
0°-40°	1987.1	34.2
0°-60°	3391.5	58.3
0°-90°	4234.2	72.8
90°-120°	337.3	5.8
90°-150°	1141.5	19.6
90°-180°	1581.0	27.2
0°-180°	5815.0	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°	1	6	10	12	13	7
95°	26	30	34	35	35	29
105°	103	103	105	106	108	109
115°	192	192	191	191	190	189
125°	280	280	279	278	278	249
135°	361	364	364	363	361	279
145°	438	440	441	440	439	274
155°	502	502	502	504	502	231
165°	547	546	545	547	546	154
175°	569	567	566	569	566	54
180°	570	570	570	570	570	

TEST NUMBER: P1033205

CATALOG NUMBER: S124DIW-B1020D470UB50-4F0-XX-W2A-F1

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°	1.3	6.2	9.7	12.3	13.2
92.5°	11.5	17.2	19.4	20.7	21.1
95°	26.4	30.4	33.5	34.8	34.8
97.5°	42.3	45.8	49.3	51.1	51.1
100°	61.7	63.4	67.4	68.3	68.3
102.5°	82.0	82.4	85.9	87.2	87.7
105°	102.7	103.1	104.9	106.2	107.5
107.5°	124.3	124.7	125.1	126.9	126.5
110°	146.3	147.2	146.7	145.8	147.2



TEST NUMBER: P1033205

CATALOG NUMBER: S124DIW-B1020D470UB50-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	169.2	169.2	168.3	168.3	168.3
115°	192.1	192.1	191.2	190.8	190.3
117.5°	213.7	213.7	213.3	211.9	210.6
120°	235.3	237.1	235.7	233.5	234.4
122.5°	257.8	258.2	257.8	256.4	254.2
125°	279.8	279.8	279.4	278.5	277.6
127.5°	299.6	300.9	300.1	299.2	298.7
130°	320.8	322.1	322.1	321.2	319.5
132.5°	342.4	343.2	342.8	341.9	341.5
135°	360.9	363.5	363.5	362.6	361.3
137.5°	381.6	382.9	383.8	382.5	382.9
140°	402.3	403.2	403.2	402.7	402.3
142.5°	421.2	422.1	421.7	421.7	421.7
145°	438.4	440.2	440.6	440.2	438.9
147.5°	456.0	458.2	457.8	457.4	456.9
150°	471.9	473.7	473.7	473.7	473.2
152.5°	486.9	487.8	488.2	489.5	488.2
155°	502.3	502.3	501.9	503.6	501.9
157.5°	515.5	514.6	514.6	516.0	514.6
160°	527.0	526.5	526.1	527.4	525.2
162.5°	537.6	536.2	535.8	538.4	536.2
165°	546.8	545.5	544.6	547.3	545.5
167.5°	554.3	552.5	552.5	555.2	552.5
170°	560.5	558.3	558.7	561.4	558.3
172.5°	564.9	563.1	563.1	566.2	563.1
175°	568.8	566.6	566.2	569.3	566.2
177.5°	570.6	568.4	568.4	571.5	568.0
180°	569.7	569.7	569.7	569.7	569.7

(END OF REPORT)