

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: P1032534

Luminaire Tested: S124DIW-B1020D770UB2750-4F0-XX-W2A-F1_5000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1032534
REPORT IS A COMBINATION OF REPORTS P996906 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D770UB2750-4F0-XX-W2A-F1_5000K
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

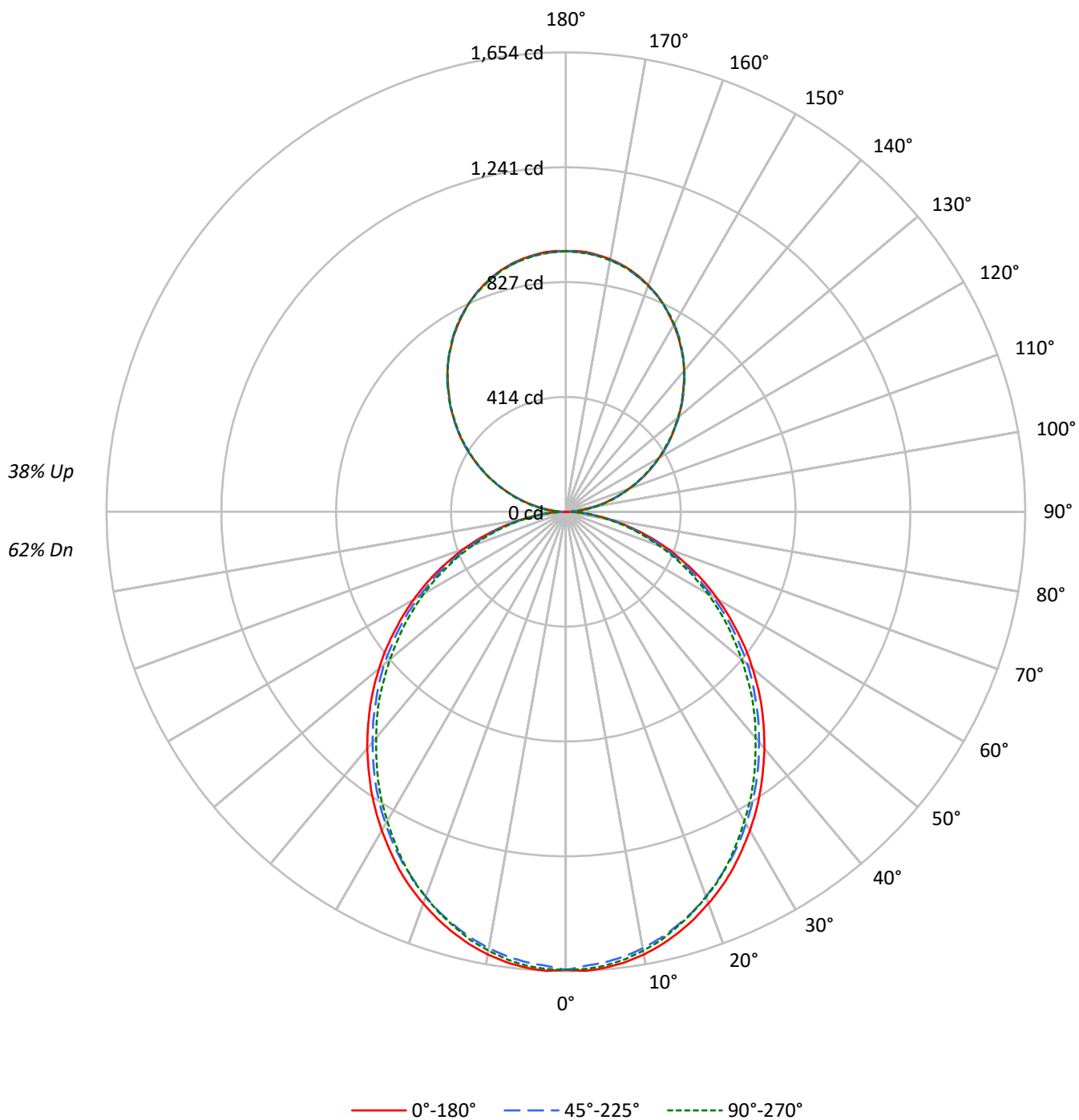
Lumens per Lamp: N/A
Luminaire Lumens: 6839.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 70
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: P1032534

CATALOG NUMBER: S124DIW-B1020D770UB2750-4F0-XX-W2A-F1_5000K

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			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67
1	100	96	92	88	94	90	87	83	79	76	74	69	67	65	59	58	57	57	57	52
2	91	84	78	72	85	79	73	68	69	65	61	60	57	54	52	50	48	48	48	44
3	83	74	66	60	78	69	63	57	61	56	51	53	49	46	46	43	41	41	41	37
4	76	65	57	51	71	61	54	49	54	48	44	48	43	39	41	38	35	35	35	32
5	70	58	50	44	65	55	47	42	49	43	38	43	38	34	37	33	30	30	30	28
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	27	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	24	24	21
8	56	43	35	30	52	41	34	28	36	30	26	32	27	24	28	24	21	21	21	19
9	52	39	32	27	49	37	30	26	33	28	23	30	25	21	26	22	19	19	19	17
10	48	36	29	24	45	34	28	23	31	25	21	27	23	19	24	20	18	18	18	16

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: P1032534

CATALOG NUMBER: S124DIW-B1020D770UB2750-4F0-XX-W2A-F1_5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.4	2.3
10°-20°	437.9	6.4
20°-30°	644.5	9.4
30°-40°	749.2	11.0
40°-50°	749.1	11.0
50°-60°	655.2	9.6
60°-70°	486.5	7.1
70°-80°	276.0	4.0
80°-90°	81.1	1.2
90°-100°	61.2	0.9
100°-110°	183.2	2.7
110°-120°	311.3	4.6
120°-130°	410.5	6.0
130°-140°	461.1	6.7
140°-150°	453.2	6.6
150°-160°	381.1	5.6
160°-170°	253.6	3.7
170°-180°	88.8	1.3
0°-30°	1237.9	18.1
0°-40°	1987.1	29.1
0°-60°	3391.5	49.6
0°-90°	4235.0	61.9
90°-120°	555.7	8.1
90°-150°	1880.4	27.5
90°-180°	2604.0	38.1
0°-180°	6839.0	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°	2	10	16	20	22	8
95°	44	50	55	57	57	47
105°	169	170	173	175	177	179
115°	316	316	315	314	314	312
125°	461	461	460	459	457	411
135°	594	599	599	597	595	460
145°	722	725	726	725	723	452
155°	827	827	827	830	827	381
165°	901	899	897	902	899	254
175°	937	933	933	938	933	89
180°	938	938	938	938	938	

TEST NUMBER: P1032534

CATALOG NUMBER: S124DIW-B1020D770UB2750-4F0-XX-W2A-F1_5000K

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°	2.2	10.2	16.0	20.3	21.8
92.5°	18.9	28.3	31.9	34.1	34.8
95°	43.5	50.1	55.2	57.3	57.3
97.5°	69.7	75.5	81.3	84.2	84.2
100°	101.6	104.5	111.1	112.5	112.5
102.5°	135.0	135.7	141.5	143.7	144.4
105°	169.1	169.8	172.7	174.9	177.1
107.5°	204.7	205.4	206.1	209.0	208.3
110°	241.0	242.4	241.7	240.3	242.4

TEST NUMBER: P1032534

CATALOG NUMBER: S124DIW-B1020D770UB2750-4F0-XX-W2A-F1_5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	278.7	278.7	277.3	277.3	277.3
115°	316.5	316.5	315.0	314.3	313.6
117.5°	352.0	352.0	351.3	349.1	346.9
120°	387.6	390.5	388.3	384.7	386.1
122.5°	424.6	425.3	424.6	422.4	418.8
125°	460.9	460.9	460.2	458.7	457.3
127.5°	493.6	495.7	494.3	492.8	492.1
130°	528.4	530.6	530.6	529.1	526.2
132.5°	564.0	565.4	564.7	563.2	562.5
135°	594.5	598.8	598.8	597.4	595.2
137.5°	628.6	630.7	632.2	630.0	630.7
140°	662.7	664.1	664.1	663.4	662.7
142.5°	693.9	695.3	694.6	694.6	694.6
145°	722.2	725.1	725.8	725.1	722.9
147.5°	751.2	754.9	754.1	753.4	752.7
150°	777.4	780.3	780.3	780.3	779.5
152.5°	802.0	803.5	804.2	806.4	804.2
155°	827.4	827.4	826.7	829.6	826.7
157.5°	849.2	847.8	847.8	849.9	847.8
160°	868.1	867.4	866.6	868.8	865.2
162.5°	885.5	883.3	882.6	887.0	883.3
165°	900.8	898.6	897.1	901.5	898.6
167.5°	913.1	910.2	910.2	914.5	910.2
170°	923.3	919.6	920.4	924.7	919.6
172.5°	930.5	927.6	927.6	932.7	927.6
175°	937.0	933.4	932.7	937.8	932.7
177.5°	940.0	936.3	936.3	941.4	935.6
180°	938.5	938.5	938.5	938.5	938.5

(END OF REPORT)