

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: P1033187

Luminaire Tested: S124DIW-B1020D470UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033187
REPORT IS A COMBINATION OF REPORTS P996854 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D470UB30-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

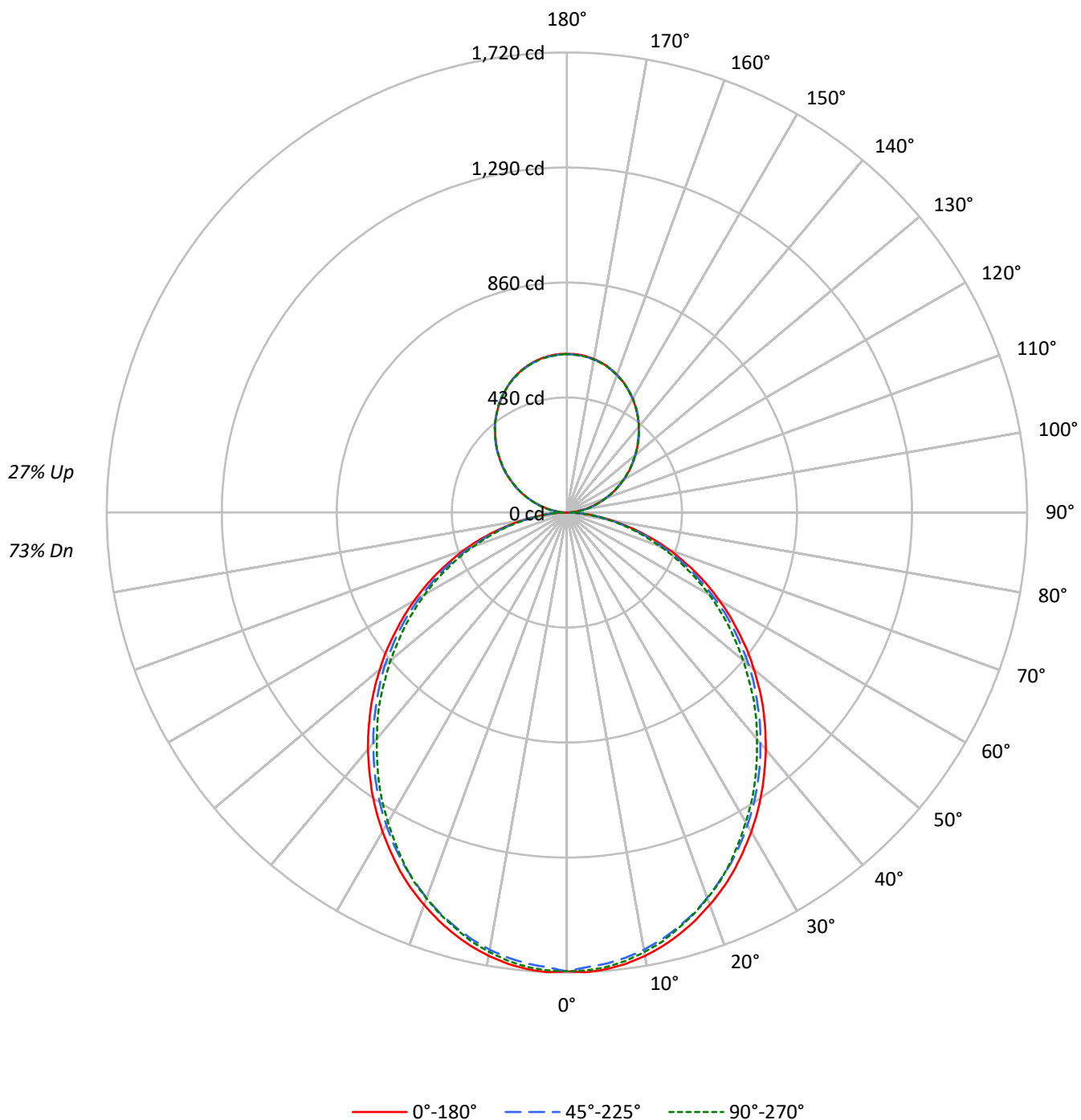
Lumens per Lamp: N/A
Luminaire Lumens: 6047.0 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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

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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	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°	13985	13985	13985
5°	13997	13583	13599
10°	13878	13206	13113
15°	13679	12758	12565
20°	13425	12272	11997
25°	13139	11760	11386
30°	12794	11206	10715
35°	12437	10639	10067
40°	12064	10029	9377
45°	11673	9416	8733
50°	11241	8824	8018
55°	10771	8130	7309
60°	10291	7371	6570
65°	9739	6587	5738
70°	9105	5643	4845
75°	8158	4550	3881
80°	6951	3290	2729
85°	5399	1832	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11673 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	2.7
10°-20°	455.4	7.5
20°-30°	670.3	11.1
30°-40°	779.1	12.9
40°-50°	779.0	12.9
50°-60°	681.4	11.3
60°-70°	505.9	8.4
70°-80°	287.0	4.7
80°-90°	83.5	1.4
90°-100°	38.6	0.6
100°-110°	115.7	1.9
110°-120°	196.5	3.2
120°-130°	259.1	4.3
130°-140°	291.1	4.8
140°-150°	286.1	4.7
150°-160°	240.6	4.0
160°-170°	160.1	2.6
170°-180°	56.1	0.9
0°-30°	1287.3	21.3
0°-40°	2066.5	34.2
0°-60°	3526.9	58.3
0°-90°	4403.3	72.8
90°-120°	350.7	5.8
90°-150°	1187.0	19.6
90°-180°	1644.0	27.2
0°-180°	6047.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1715	1715	1715	1715	1715	
5°	1714	1708	1693	1708	1705	163
15°	1631	1626	1605	1613	1609	460
25°	1477	1468	1448	1450	1444	680
35°	1271	1262	1242	1233	1226	795
45°	1038	1028	1006	991	987	800
55°	785	781	761	745	737	703
65°	532	525	511	498	491	526
75°	283	276	269	264	262	300
85°	74	74	72	72	70	80
90°	1	6	10	13	14	7
95°	28	32	35	36	36	30
105°	107	107	109	110	112	113
115°	200	200	199	198	198	197
125°	291	291	290	290	289	259
135°	375	378	378	377	376	290
145°	456	458	458	458	456	285
155°	522	522	522	524	522	240
165°	569	567	566	569	567	160
175°	592	589	589	592	589	56
180°	592	592	592	592	592	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1715.0	1715.0	1715.0	1715.0	1715.0
2.5°	1720.5	1716.4	1701.3	1715.0	1713.7
5°	1713.7	1708.2	1693.1	1708.2	1705.4
7.5°	1701.3	1695.8	1679.3	1691.7	1690.3
10°	1683.4	1677.9	1660.1	1671.1	1668.3
12.5°	1660.1	1654.6	1635.3	1647.7	1643.6
15°	1631.2	1625.7	1605.1	1613.4	1609.2
17.5°	1598.2	1591.4	1572.1	1577.6	1574.9
20°	1561.1	1554.3	1533.6	1537.8	1535.0
22.5°	1521.3	1511.7	1491.0	1499.3	1493.8
25°	1477.3	1467.7	1448.4	1449.8	1444.3
27.5°	1427.8	1418.2	1400.3	1397.6	1390.7
30°	1378.4	1367.4	1349.5	1344.0	1337.1
32.5°	1326.1	1316.5	1297.3	1290.4	1283.5
35°	1271.2	1261.5	1242.3	1232.7	1225.8
37.5°	1213.5	1205.2	1184.6	1175.0	1165.4
40°	1157.1	1146.1	1125.5	1111.8	1104.9
42.5°	1096.6	1091.1	1067.8	1051.3	1047.2
45°	1037.5	1027.9	1005.9	990.8	986.7
47.5°	975.7	968.8	948.2	931.7	920.7
50°	912.5	907.0	887.8	868.5	860.3
52.5°	850.7	843.8	823.2	806.7	795.7
55°	784.7	780.6	761.3	744.8	736.6
57.5°	722.8	718.7	699.5	683.0	674.7
60°	658.3	651.4	633.5	621.2	614.3
62.5°	595.0	589.5	570.3	559.3	552.4
65°	531.8	525.0	511.2	497.5	490.6
67.5°	467.2	461.7	448.0	434.3	432.9
70°	408.1	398.5	387.5	376.5	372.4
72.5°	344.9	335.3	327.1	318.8	314.7
75°	283.1	276.2	269.4	263.9	262.5
77.5°	222.6	219.9	213.0	211.6	207.5
80°	169.0	164.9	162.2	159.4	158.0
82.5°	116.8	115.4	115.4	114.1	112.7
85°	74.2	74.2	71.5	71.5	70.1
87.5°	35.7	34.4	33.0	33.0	33.0
90°	1.4	6.4	10.1	12.8	13.7
92.5°	11.9	17.9	20.2	21.5	22.0
95°	27.5	31.6	34.8	36.2	36.2
97.5°	44.0	47.6	51.3	53.1	53.1
100°	64.1	66.0	70.1	71.0	71.0
102.5°	85.2	85.7	89.3	90.7	91.2
105°	106.8	107.2	109.0	110.4	111.8
107.5°	129.2	129.7	130.1	132.0	131.5
110°	152.1	153.0	152.6	151.7	153.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	175.9	175.9	175.0	175.0	175.0
115°	199.8	199.8	198.8	198.4	197.9
117.5°	222.2	222.2	221.8	220.4	219.0
120°	244.7	246.5	245.1	242.8	243.7
122.5°	268.0	268.5	268.0	266.7	264.4
125°	290.9	290.9	290.5	289.6	288.6
127.5°	311.6	312.9	312.0	311.1	310.6
130°	333.5	334.9	334.9	334.0	332.2
132.5°	356.0	356.9	356.5	355.5	355.1
135°	375.2	378.0	378.0	377.1	375.7
137.5°	396.8	398.2	399.1	397.7	398.2
140°	418.3	419.2	419.2	418.8	418.3
142.5°	438.0	438.9	438.5	438.5	438.5
145°	455.9	457.7	458.2	457.7	456.3
147.5°	474.2	476.5	476.0	475.6	475.1
150°	490.7	492.5	492.5	492.5	492.1
152.5°	506.3	507.2	507.7	509.0	507.7
155°	522.3	522.3	521.9	523.7	521.9
157.5°	536.1	535.1	535.1	536.5	535.1
160°	548.0	547.5	547.1	548.4	546.1
162.5°	559.0	557.6	557.1	559.9	557.6
165°	568.6	567.2	566.3	569.0	567.2
167.5°	576.4	574.5	574.5	577.3	574.5
170°	582.8	580.5	581.0	583.7	580.5
172.5°	587.4	585.5	585.5	588.7	585.5
175°	591.5	589.2	588.7	592.0	588.7
177.5°	593.3	591.0	591.0	594.2	590.6
180°	592.4	592.4	592.4	592.4	592.4

(END OF REPORT)