

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: P1033193

Luminaire Tested: S124DIW-B1020D470UB35-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033193
REPORT IS A COMBINATION OF REPORTS P996863 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D470UB35-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

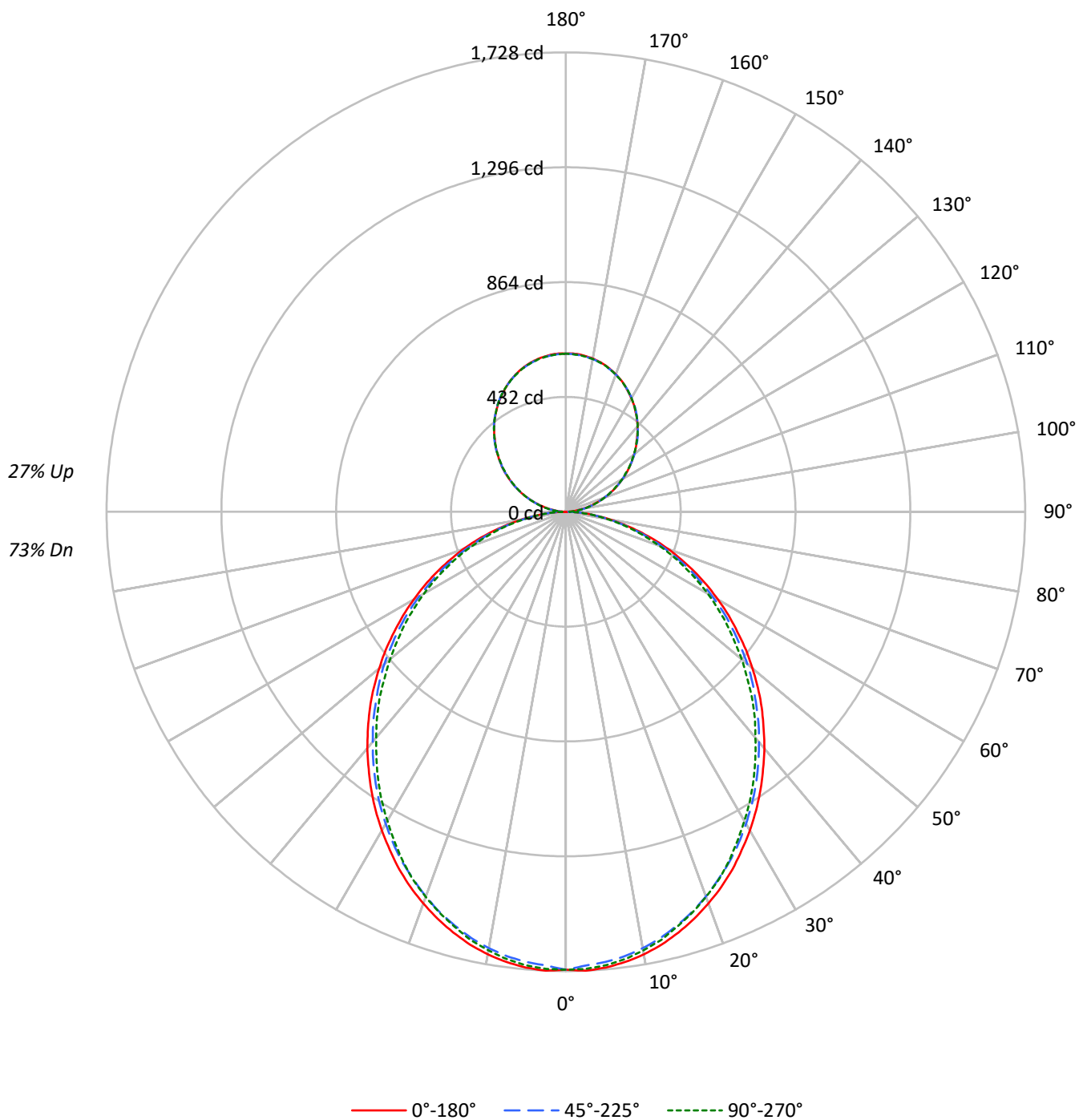
Lumens per Lamp: N/A
Luminaire Lumens: 6073.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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					0
RW	70	50	30	10	70	50	30	10	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	77	77	73
1	103	98	94	91	97	93	90	87	84	82	79	76	74	72	68	67	65	65	65	61
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55	55	55	51
3	85	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47	47	47	43
4	78	67	59	52	74	64	56	51	58	52	47	53	48	44	47	44	40	40	40	37
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35	35	35	32
6	66	54	45	39	63	51	44	38	47	40	36	43	37	33	39	34	31	31	31	28
7	62	49	40	35	58	47	39	34	43	36	32	39	34	30	36	31	28	28	28	25
8	57	44	36	31	54	43	35	30	39	33	28	36	30	26	33	28	25	25	25	23
9	53	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	22	22	22	20
10	50	37	30	25	47	36	29	24	33	27	23	31	25	22	28	24	20	20	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14045	14045	14045
5°	14058	13642	13658
10°	13938	13262	13170
15°	13739	12812	12620
20°	13483	12326	12049
25°	13196	11811	11436
30°	12849	11254	10762
35°	12491	10685	10110
40°	12116	10073	9418
45°	11723	9457	8771
50°	11289	8861	8053
55°	10818	8165	7341
60°	10334	7403	6598
65°	9781	6615	5762
70°	9145	5668	4866
75°	8193	4568	3897
80°	6984	3304	2741
85°	5421	1840	1476

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11723 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.3	2.7
10°-20°	457.4	7.5
20°-30°	673.1	11.1
30°-40°	782.5	12.9
40°-50°	782.4	12.9
50°-60°	684.3	11.3
60°-70°	508.0	8.4
70°-80°	288.3	4.7
80°-90°	83.8	1.4
90°-100°	38.8	0.6
100°-110°	116.2	1.9
110°-120°	197.3	3.2
120°-130°	260.2	4.3
130°-140°	292.3	4.8
140°-150°	287.3	4.7
150°-160°	241.6	4.0
160°-170°	160.8	2.6
170°-180°	56.3	0.9
0°-30°	1292.9	21.3
0°-40°	2075.4	34.2
0°-60°	3542.1	58.3
0°-90°	4422.3	72.8
90°-120°	352.3	5.8
90°-150°	1192.1	19.6
90°-180°	1651.0	27.2
0°-180°	6073.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1722	1722	1722	1722	1722	
5°	1721	1716	1700	1716	1713	163
15°	1638	1633	1612	1620	1616	462
25°	1484	1474	1455	1456	1451	683
35°	1277	1267	1248	1238	1231	798
45°	1042	1032	1010	995	991	803
55°	788	784	765	748	740	706
65°	534	527	513	500	493	529
75°	284	277	270	265	264	302
85°	74	74	72	72	70	80
90°	1	6	10	13	14	7
95°	28	32	35	36	36	30
105°	107	108	110	111	112	114
115°	201	201	200	199	199	198
125°	292	292	292	291	290	260
135°	377	380	380	379	377	292
145°	458	460	460	460	458	287
155°	524	524	524	526	524	241
165°	571	570	569	572	570	161
175°	594	592	591	594	591	56
180°	595	595	595	595	595	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1722.4	1722.4	1722.4	1722.4	1722.4
2.5°	1728.0	1723.8	1708.6	1722.4	1721.1
5°	1721.1	1715.5	1700.4	1715.5	1712.8
7.5°	1708.6	1703.1	1686.6	1699.0	1697.6
10°	1690.7	1685.2	1667.2	1678.3	1675.5
12.5°	1667.2	1661.7	1642.4	1654.8	1650.7
15°	1638.3	1632.7	1612.0	1620.3	1616.2
17.5°	1605.1	1598.2	1578.9	1584.4	1581.7
20°	1567.9	1561.0	1540.3	1544.4	1541.6
22.5°	1527.8	1518.2	1497.5	1505.8	1500.2
25°	1483.7	1474.0	1454.7	1456.1	1450.6
27.5°	1434.0	1424.3	1406.4	1403.6	1396.7
30°	1384.3	1373.3	1355.3	1349.8	1342.9
32.5°	1331.9	1322.2	1302.9	1296.0	1289.1
35°	1276.7	1267.0	1247.7	1238.0	1231.1
37.5°	1218.7	1210.4	1189.7	1180.0	1170.4
40°	1162.1	1151.1	1130.4	1116.6	1109.7
42.5°	1101.4	1095.9	1072.4	1055.8	1051.7
45°	1042.0	1032.4	1010.3	995.1	991.0
47.5°	979.9	973.0	952.3	935.8	924.7
50°	916.4	910.9	891.6	872.3	864.0
52.5°	854.3	847.4	826.7	810.2	799.1
55°	788.1	783.9	764.6	748.1	739.8
57.5°	726.0	721.8	702.5	685.9	677.7
60°	661.1	654.2	636.3	623.8	616.9
62.5°	597.6	592.1	572.8	561.7	554.8
65°	534.1	527.2	513.4	499.6	492.7
67.5°	469.3	463.7	449.9	436.1	434.8
70°	409.9	400.2	389.2	378.2	374.0
72.5°	346.4	336.8	328.5	320.2	316.1
75°	284.3	277.4	270.5	265.0	263.6
77.5°	223.6	220.8	213.9	212.5	208.4
80°	169.8	165.6	162.9	160.1	158.7
82.5°	117.3	115.9	115.9	114.6	113.2
85°	74.5	74.5	71.8	71.8	70.4
87.5°	35.9	34.5	33.1	33.1	33.1
90°	1.4	6.4	10.1	12.9	13.8
92.5°	12.0	17.9	20.2	21.6	22.1
95°	27.6	31.7	35.0	36.3	36.3
97.5°	44.2	47.9	51.5	53.4	53.4
100°	64.4	66.3	70.4	71.3	71.3
102.5°	85.6	86.0	89.7	91.1	91.6
105°	107.2	107.7	109.5	110.9	112.3
107.5°	129.8	130.2	130.7	132.5	132.1
110°	152.8	153.7	153.2	152.3	153.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	176.7	176.7	175.8	175.8	175.8
115°	200.6	200.6	199.7	199.2	198.8
117.5°	223.2	223.2	222.7	221.3	219.9
120°	245.7	247.5	246.2	243.9	244.8
122.5°	269.2	269.6	269.2	267.8	265.5
125°	292.2	292.2	291.7	290.8	289.9
127.5°	312.9	314.3	313.3	312.4	312.0
130°	335.0	336.3	336.3	335.4	333.6
132.5°	357.5	358.4	358.0	357.1	356.6
135°	376.8	379.6	379.6	378.7	377.3
137.5°	398.5	399.8	400.8	399.4	399.8
140°	420.1	421.0	421.0	420.6	420.1
142.5°	439.9	440.8	440.3	440.3	440.3
145°	457.8	459.7	460.1	459.7	458.3
147.5°	476.2	478.5	478.1	477.6	477.1
150°	492.8	494.6	494.6	494.6	494.2
152.5°	508.4	509.4	509.8	511.2	509.8
155°	524.5	524.5	524.1	525.9	524.1
157.5°	538.3	537.4	537.4	538.8	537.4
160°	550.3	549.8	549.4	550.8	548.5
162.5°	561.3	560.0	559.5	562.3	560.0
165°	571.0	569.6	568.7	571.5	569.6
167.5°	578.8	577.0	577.0	579.8	577.0
170°	585.3	583.0	583.4	586.2	583.0
172.5°	589.9	588.0	588.0	591.3	588.0
175°	594.0	591.7	591.3	594.5	591.3
177.5°	595.9	593.6	593.6	596.8	593.1
180°	594.9	594.9	594.9	594.9	594.9

(END OF REPORT)