

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: P1033198

Luminaire Tested: S124DIW-B1020D470UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033198
REPORT IS A COMBINATION OF REPORTS P996871 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D470UB40-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

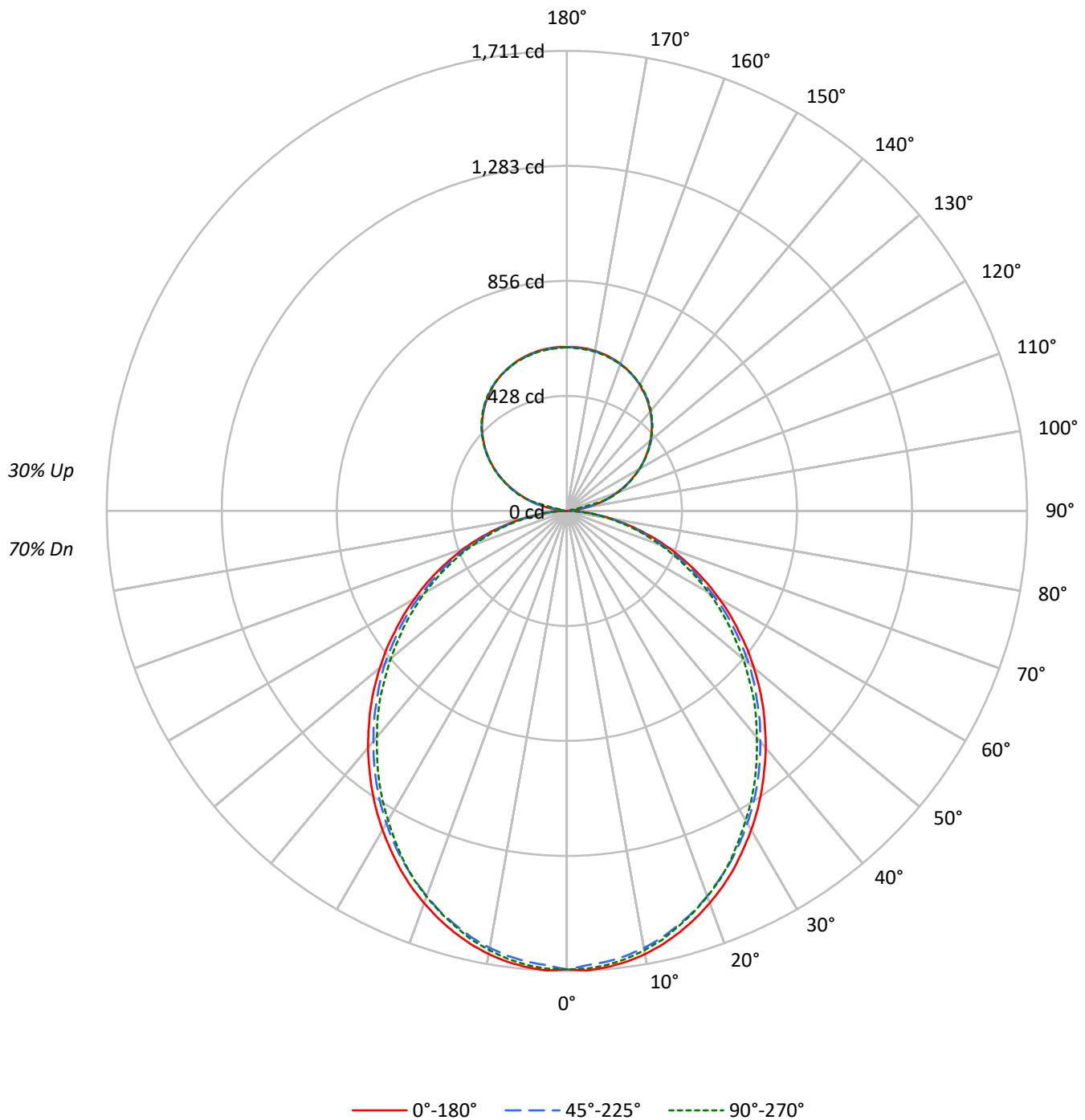
Lumens per Lamp: N/A
Luminaire Lumens: 6263.0 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74
1	102	98	94	90	96	93	89	86	83	80	78	74	72	70	66	64	63
2	93	85	79	74	88	81	75	70	73	68	64	65	61	58	58	55	53
3	85	75	67	61	80	71	64	59	64	59	54	57	53	49	51	48	45
4	78	67	58	52	73	63	56	50	57	51	46	51	46	42	46	42	39
5	72	59	51	45	67	57	49	43	51	45	40	46	41	37	41	37	34
6	66	53	45	39	62	51	43	38	46	40	35	42	36	32	38	33	30
7	61	48	40	34	58	46	39	33	42	36	31	38	33	29	34	30	27
8	57	44	36	31	54	42	35	30	38	32	28	35	30	26	32	27	24
9	53	40	33	27	50	39	31	27	35	29	25	32	27	23	29	25	22
10	50	37	30	25	47	36	29	24	33	27	22	30	25	21	27	23	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13906	13906	13906
5°	13917	13506	13522
10°	13800	13130	13039
15°	13602	12685	12494
20°	13349	12203	11929
25°	13064	11693	11321
30°	12721	11142	10654
35°	12365	10579	10010
40°	11995	9972	9324
45°	11608	9363	8683
50°	11177	8773	7973
55°	10710	8084	7267
60°	10231	7329	6533
65°	9684	6550	5705
70°	9053	5611	4818
75°	8112	4522	3859
80°	6914	3269	2714
85°	5370	1822	1461

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11608 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	2.6
10°-20°	452.8	7.2
20°-30°	666.4	10.6
30°-40°	774.7	12.4
40°-50°	774.6	12.4
50°-60°	677.5	10.8
60°-70°	503.0	8.0
70°-80°	285.4	4.6
80°-90°	83.0	1.3
90°-100°	20.2	0.3
100°-110°	133.1	2.1
110°-120°	254.3	4.1
120°-130°	322.8	5.2
130°-140°	345.3	5.5
140°-150°	322.9	5.2
150°-160°	260.4	4.2
160°-170°	167.9	2.7
170°-180°	57.9	0.9
0°-30°	1280.0	20.4
0°-40°	2054.7	32.8
0°-60°	3506.8	56.0
0°-90°	4378.2	69.9
90°-120°	407.6	6.5
90°-150°	1398.6	22.3
90°-180°	1885.0	30.1
0°-180°	6263.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1704	1698	1683	1698	1696	162
15°	1622	1616	1596	1604	1600	457
25°	1469	1459	1440	1442	1436	676
35°	1264	1254	1235	1226	1219	790
45°	1032	1022	1000	985	981	795
55°	780	776	757	741	732	699
65°	529	522	508	495	488	523
75°	282	275	268	262	261	299
85°	74	74	71	71	70	79
90°	1	6	10	13	14	6
95°	25	10	10	13	13	31
105°	137	140	142	146	130	143
115°	256	257	257	258	258	252
125°	360	362	361	362	363	321
135°	446	446	448	449	450	344
145°	515	516	516	517	518	322
155°	564	565	564	565	564	260
165°	595	593	593	597	593	168
175°	609	606	607	611	605	58
180°	609	609	609	609	609	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.3	1705.3	1705.3	1705.3	1705.3
2.5°	1710.8	1706.7	1691.6	1705.3	1703.9
5°	1703.9	1698.5	1683.4	1698.5	1695.7
7.5°	1691.6	1686.2	1669.8	1682.1	1680.7
10°	1673.9	1668.4	1650.6	1661.6	1658.8
12.5°	1650.6	1645.2	1626.1	1638.4	1634.3
15°	1622.0	1616.5	1596.0	1604.2	1600.1
17.5°	1589.2	1582.3	1563.2	1568.7	1565.9
20°	1552.3	1545.4	1524.9	1529.0	1526.3
22.5°	1512.6	1503.1	1482.6	1490.8	1485.3
25°	1468.9	1459.3	1440.2	1441.6	1436.1
27.5°	1419.7	1410.2	1392.4	1389.7	1382.8
30°	1370.5	1359.6	1341.8	1336.4	1329.5
32.5°	1318.6	1309.0	1289.9	1283.1	1276.2
35°	1263.9	1254.4	1235.3	1225.7	1218.9
37.5°	1206.6	1198.4	1177.9	1168.3	1158.7
40°	1150.5	1139.6	1119.1	1105.4	1098.6
42.5°	1090.4	1084.9	1061.7	1045.3	1041.2
45°	1031.7	1022.1	1000.2	985.2	981.1
47.5°	970.2	963.3	942.8	926.4	915.5
50°	907.3	901.8	882.7	863.6	855.4
52.5°	845.8	839.0	818.5	802.1	791.2
55°	780.2	776.1	757.0	740.6	732.4
57.5°	718.7	714.6	695.5	679.1	670.9
60°	654.5	647.7	629.9	617.6	610.8
62.5°	591.7	586.2	567.1	556.1	549.3
65°	528.8	522.0	508.3	494.6	487.8
67.5°	464.6	459.1	445.5	431.8	430.4
70°	405.8	396.3	385.3	374.4	370.3
72.5°	343.0	333.4	325.2	317.0	312.9
75°	281.5	274.7	267.8	262.4	261.0
77.5°	221.4	218.6	211.8	210.4	206.3
80°	168.1	164.0	161.2	158.5	157.1
82.5°	116.1	114.8	114.8	113.4	112.0
85°	73.8	73.8	71.1	71.1	69.7
87.5°	35.5	34.2	32.8	32.8	32.8
90°	1.4	6.4	10.0	12.8	13.7
92.5°	6.8	5.9	9.6	12.3	12.3
95°	25.1	9.6	10.0	12.8	13.2
97.5°	47.8	57.9	10.0	12.3	12.8
100°	74.7	82.9	20.0	12.3	12.8
102.5°	104.8	110.2	115.7	13.2	13.2
105°	137.1	139.9	142.1	146.2	129.8
107.5°	166.7	168.1	171.3	173.6	175.4
110°	196.8	198.2	200.9	201.8	203.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	226.0	228.7	229.6	229.1	231.0
115°	256.0	257.4	256.9	257.9	257.9
117.5°	282.9	284.7	286.1	285.6	285.6
120°	310.2	312.1	311.6	312.5	311.6
122.5°	335.8	336.7	337.6	338.0	337.1
125°	359.9	361.7	360.8	362.2	362.6
127.5°	383.1	383.6	385.9	385.4	385.0
130°	405.5	405.9	407.3	407.7	407.7
132.5°	426.0	426.9	428.7	429.1	428.7
135°	446.5	446.0	447.8	448.7	449.6
137.5°	464.7	464.7	467.0	467.9	467.4
140°	482.4	483.4	484.3	485.6	486.1
142.5°	498.4	500.2	500.7	501.6	501.6
145°	514.8	516.2	516.2	516.6	517.5
147.5°	527.5	530.3	529.8	530.3	530.7
150°	541.7	543.5	543.0	543.0	543.5
152.5°	553.5	554.9	554.0	554.9	554.4
155°	564.4	564.9	563.5	565.4	564.0
157.5°	574.0	574.0	572.2	574.5	572.2
160°	582.2	580.8	580.4	583.1	580.4
162.5°	589.5	587.7	587.2	590.0	586.8
165°	595.4	593.1	593.1	596.8	592.7
167.5°	600.4	598.2	597.7	601.8	597.2
170°	604.5	601.8	602.3	605.9	601.3
172.5°	607.3	604.5	605.0	608.6	603.6
175°	609.1	606.4	606.8	610.9	605.4
177.5°	610.5	607.3	608.2	611.8	606.4
180°	609.1	609.1	609.1	609.1	609.1

(END OF REPORT)