

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: P1024954

Luminaire Tested: S124DIP-B1020D590UB30-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1024954
REPORT IS A COMBINATION OF REPORTS P995329 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIP-B1020D590UB30-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

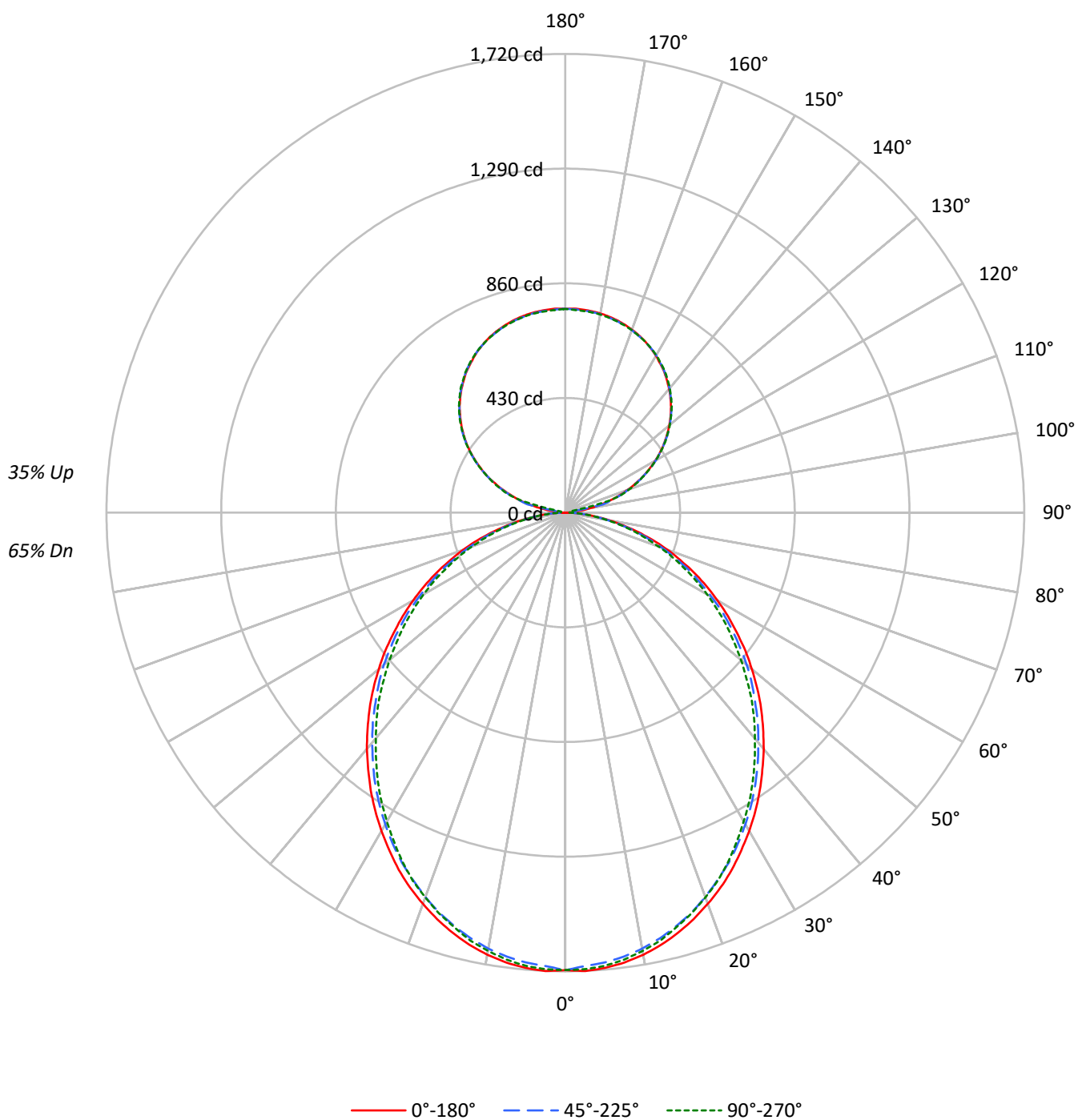
Lumens per Lamp: N/A
Luminaire Lumens: 6768.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 62.2
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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70
1	101	97	93	89	95	91	88	84	80	78	75	71	69	67	62	60	59
2	92	84	78	73	86	80	74	69	71	66	62	62	59	56	54	52	50
3	84	74	67	61	79	70	63	58	62	57	53	55	51	47	48	45	42
4	77	66	58	51	72	62	55	49	55	49	45	49	44	41	43	39	36
5	71	59	50	44	66	56	48	42	50	43	39	44	39	35	39	35	32
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	35	31	28
7	60	48	40	34	57	45	38	33	41	34	30	36	31	27	32	28	25
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	25	22
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20
10	49	37	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18

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	2.4
10°-20°	455.4	6.7
20°-30°	670.3	9.9
30°-40°	779.1	11.5
40°-50°	779.0	11.5
50°-60°	681.4	10.1
60°-70°	505.9	7.5
70°-80°	287.0	4.2
80°-90°	83.8	1.2
90°-100°	25.4	0.4
100°-110°	167.0	2.5
110°-120°	319.0	4.7
120°-130°	404.9	6.0
130°-140°	433.2	6.4
140°-150°	405.0	6.0
150°-160°	326.6	4.8
160°-170°	210.7	3.1
170°-180°	72.6	1.1
0°-30°	1287.3	19.0
0°-40°	2066.5	30.5
0°-60°	3526.9	52.1
0°-90°	4403.6	65.1
90°-120°	511.4	7.6
90°-150°	1754.5	25.9
90°-180°	2364.0	34.9
0°-180°	6768.0	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°	2	8	13	16	17	7
95°	31	12	13	16	17	39
105°	172	176	178	184	163	180
115°	321	323	322	324	324	316
125°	452	454	453	454	455	403
135°	560	560	562	563	564	432
145°	646	648	648	648	649	404
155°	708	709	707	709	708	327
165°	747	744	744	749	744	211
175°	764	761	761	766	760	73
180°	764	764	764	764	764	

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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°	1.7	8.0	12.6	16.0	17.1
92.5°	8.6	7.4	12.0	15.4	15.4
95°	31.4	12.0	12.6	16.0	16.6
97.5°	60.0	72.6	12.6	15.4	16.0
100°	93.7	104.0	25.1	15.4	16.0
102.5°	131.4	138.3	145.2	16.6	16.6
105°	172.0	175.5	178.3	183.5	162.9
107.5°	209.2	210.9	214.9	217.7	220.0
110°	246.9	248.6	252.0	253.2	254.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	283.5	286.9	288.0	287.5	289.8
115°	321.2	322.9	322.3	323.5	323.5
117.5°	354.9	357.2	358.9	358.3	358.3
120°	389.2	391.5	390.9	392.1	390.9
122.5°	421.2	422.3	423.5	424.1	422.9
125°	451.5	453.8	452.6	454.4	454.9
127.5°	480.6	481.2	484.1	483.5	482.9
130°	508.6	509.2	510.9	511.5	511.5
132.5°	534.4	535.5	537.8	538.4	537.8
135°	560.1	559.5	561.8	562.9	564.1
137.5°	582.9	582.9	585.8	586.9	586.4
140°	605.2	606.4	607.5	609.2	609.8
142.5°	625.2	627.5	628.1	629.2	629.2
145°	645.8	647.5	647.5	648.1	649.2
147.5°	661.8	665.2	664.7	665.2	665.8
150°	679.5	681.8	681.2	681.2	681.8
152.5°	694.4	696.1	695.0	696.1	695.5
155°	708.1	708.7	707.0	709.2	707.5
157.5°	720.1	720.1	717.8	720.7	717.8
160°	730.4	728.7	728.1	731.5	728.1
162.5°	739.5	737.2	736.7	740.1	736.1
165°	747.0	744.1	744.1	748.7	743.5
167.5°	753.3	750.4	749.8	755.0	749.2
170°	758.4	755.0	755.5	760.1	754.4
172.5°	761.8	758.4	759.0	763.5	757.3
175°	764.1	760.7	761.3	766.4	759.5
177.5°	765.8	761.8	763.0	767.5	760.7
180°	764.1	764.1	764.1	764.1	764.1

(END OF REPORT)