

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: P1033217

Luminaire Tested: S124DIW-B1020D770UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033217
REPORT IS A COMBINATION OF REPORTS P996920 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D770UB30-4F0-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

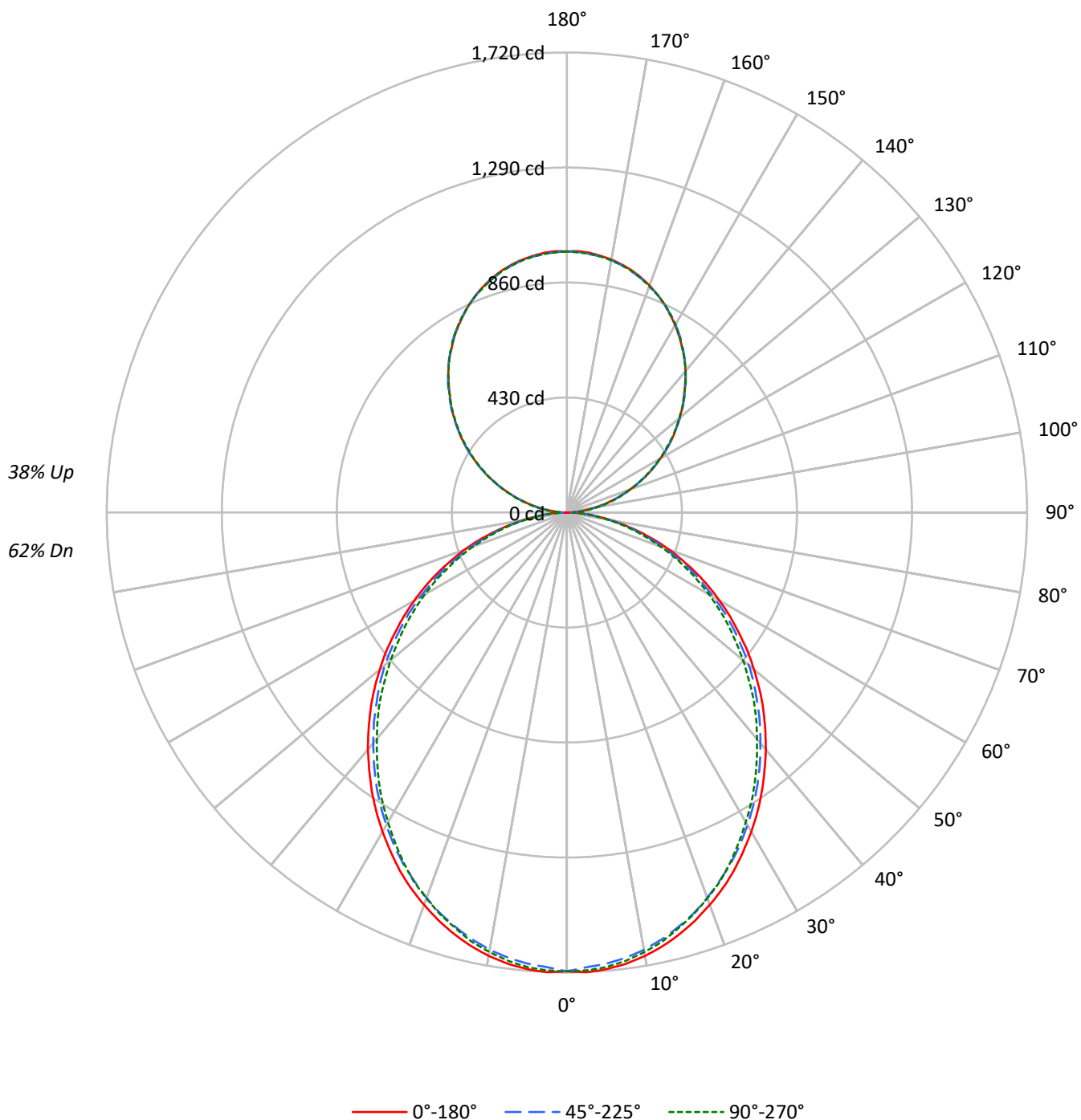
Lumens per Lamp: N/A
Luminaire Lumens: 7113.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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

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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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	100	96	92	88	94	90	87	83	79	76	74	69	67	65	59	58	57
2	91	84	78	72	85	79	73	68	69	65	61	60	57	54	52	50	48
3	83	74	66	60	78	69	63	57	61	56	51	53	49	46	46	43	41
4	76	65	57	51	71	61	54	49	54	48	44	48	43	39	41	38	35
5	70	58	50	44	65	55	47	42	49	43	38	43	38	34	37	33	30
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24
8	56	43	35	30	52	41	34	28	36	30	26	32	27	24	28	24	21
9	52	39	32	27	49	37	30	26	33	28	23	30	25	21	26	22	19
10	48	36	29	24	45	34	28	23	31	25	21	27	23	19	24	20	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	2.3
10°-20°	455.4	6.4
20°-30°	670.3	9.4
30°-40°	779.1	11.0
40°-50°	779.0	11.0
50°-60°	681.4	9.6
60°-70°	505.9	7.1
70°-80°	287.0	4.0
80°-90°	84.3	1.2
90°-100°	63.6	0.9
100°-110°	190.6	2.7
110°-120°	323.8	4.6
120°-130°	427.1	6.0
130°-140°	479.7	6.7
140°-150°	471.4	6.6
150°-160°	396.5	5.6
160°-170°	263.8	3.7
170°-180°	92.4	1.3
0°-30°	1287.3	18.1
0°-40°	2066.5	29.1
0°-60°	3526.9	49.6
0°-90°	4404.1	61.9
90°-120°	578.0	8.1
90°-150°	1956.2	27.5
90°-180°	2709.0	38.1
0°-180°	7113.0	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	11	17	21	23	8
95°	45	52	57	60	60	49
105°	176	177	180	182	184	187
115°	329	329	328	327	326	325
125°	480	480	479	477	476	427
135°	618	623	623	621	619	478
145°	751	754	755	754	752	470
155°	861	861	860	863	860	396
165°	937	935	933	938	935	264
175°	975	971	970	976	970	93
180°	976	976	976	976	976	

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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°	2.3	10.6	16.6	21.1	22.7
92.5°	19.6	29.4	33.2	35.5	36.2
95°	45.3	52.1	57.4	59.7	59.7
97.5°	72.5	78.5	84.6	87.6	87.6
100°	105.7	108.7	115.5	117.0	117.0
102.5°	140.4	141.2	147.2	149.5	150.3
105°	175.9	176.7	179.7	182.0	184.2
107.5°	212.9	213.7	214.4	217.5	216.7
110°	250.7	252.2	251.4	249.9	252.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	289.9	289.9	288.4	288.4	288.4
115°	329.2	329.2	327.7	326.9	326.2
117.5°	366.2	366.2	365.5	363.2	360.9
120°	403.2	406.2	404.0	400.2	401.7
122.5°	441.7	442.5	441.7	439.5	435.7
125°	479.5	479.5	478.7	477.2	475.7
127.5°	513.5	515.7	514.2	512.7	511.9
130°	549.7	552.0	552.0	550.5	547.4
132.5°	586.7	588.2	587.4	585.9	585.2
135°	618.4	622.9	622.9	621.4	619.2
137.5°	653.9	656.2	657.7	655.4	656.2
140°	689.4	690.9	690.9	690.1	689.4
142.5°	721.9	723.4	722.6	722.6	722.6
145°	751.3	754.3	755.1	754.3	752.1
147.5°	781.5	785.3	784.5	783.8	783.0
150°	808.7	811.7	811.7	811.7	811.0
152.5°	834.4	835.9	836.6	838.9	836.6
155°	860.8	860.8	860.0	863.1	860.0
157.5°	883.4	881.9	881.9	884.2	881.9
160°	903.1	902.3	901.6	903.8	900.1
162.5°	921.2	918.9	918.2	922.7	918.9
165°	937.1	934.8	933.3	937.8	934.8
167.5°	949.9	946.9	946.9	951.4	946.9
170°	960.5	956.7	957.4	962.0	956.7
172.5°	968.0	965.0	965.0	970.3	965.0
175°	974.8	971.0	970.3	975.6	970.3
177.5°	977.8	974.0	974.0	979.3	973.3
180°	976.3	976.3	976.3	976.3	976.3

(END OF REPORT)