

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: P1033905

Luminaire Tested: S124RDIW-B1020D770UB27-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033905
REPORT IS A COMBINATION OF REPORTS P999999 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDIW-B1020D770UB27-4F0-XX-W2A-F1
Description: Define 4 Regressed Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473}
{m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

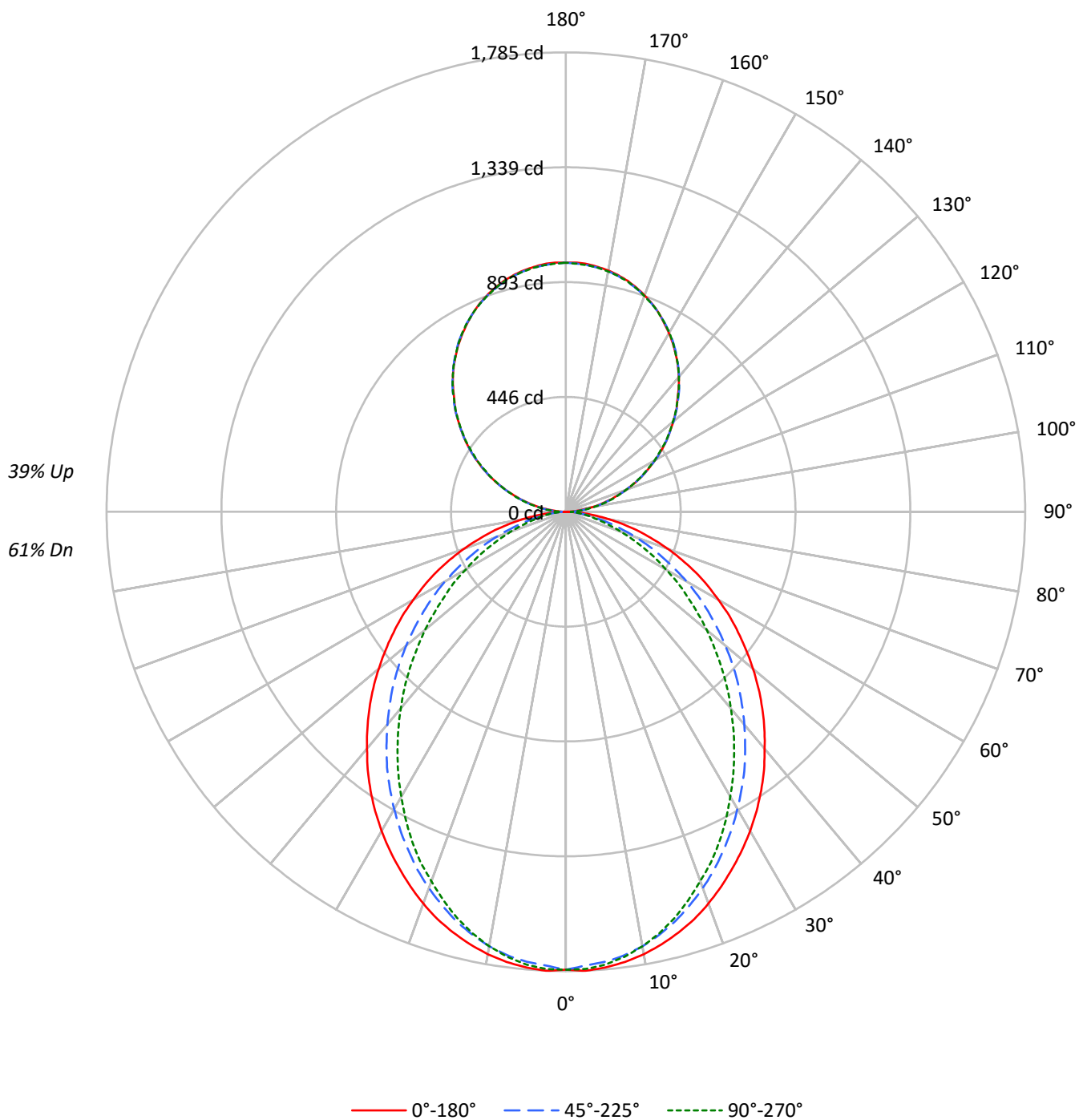
Lumens per Lamp: N/A
Luminaire Lumens: 6799.0 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	89	89	89	77	77	77	66	66	66
1	100	96	92	89	94	90	87	84	79	76	74	68	67	65	59	57	56
2	92	84	78	73	86	79	74	69	69	65	62	60	57	55	52	50	48
3	84	74	67	61	78	70	64	58	62	56	52	54	50	47	46	44	41
4	77	66	58	52	72	62	55	50	55	49	45	48	44	40	42	38	36
5	71	59	51	45	66	56	48	43	49	43	39	43	39	35	38	34	31
6	65	53	45	39	61	50	43	38	45	39	34	39	35	31	34	31	28
7	61	48	40	35	57	46	38	33	41	35	30	36	31	27	31	28	25
8	56	44	36	31	53	42	34	30	37	31	27	33	28	25	29	25	22
9	52	40	33	28	49	38	31	26	34	28	24	30	26	22	27	23	20
10	49	37	30	25	46	35	28	24	31	26	22	28	23	20	25	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14512	14512	14512
5°	14513	14081	14082
10°	14391	13636	13474
15°	14192	13083	12757
20°	13933	12452	11939
25°	13610	11772	11140
30°	13293	11077	10243
35°	12945	10374	9366
40°	12531	9616	8466
45°	12142	8865	7573
50°	11701	8044	6668
55°	11223	7203	5733
60°	10692	6309	4810
65°	10182	5286	3920
70°	9455	4207	2996
75°	8521	3060	2095
80°	7119	1880	1506
85°	5356	1081	828

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12142 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.3	2.5
10°-20°	466.6	6.9
20°-30°	673.6	9.9
30°-40°	763.5	11.2
40°-50°	737.1	10.8
50°-60°	612.8	9.0
60°-70°	423.0	6.2
70°-80°	213.7	3.1
80°-90°	56.3	0.8
90°-100°	63.1	0.9
100°-110°	188.9	2.8
110°-120°	321.0	4.7
120°-130°	423.3	6.2
130°-140°	475.4	7.0
140°-150°	467.3	6.9
150°-160°	393.0	5.8
160°-170°	261.5	3.8
170°-180°	91.6	1.3
0°-30°	1307.6	19.2
0°-40°	2071.0	30.5
0°-60°	3421.0	50.3
0°-90°	4114.1	60.5
90°-120°	572.9	8.4
90°-150°	1938.9	28.5
90°-180°	2685.0	39.5
0°-180°	6799.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1780	1780	1780	1780	1780	
5°	1777	1771	1755	1769	1766	169
15°	1692	1680	1646	1643	1634	477
25°	1530	1506	1450	1427	1413	705
35°	1323	1280	1211	1165	1140	827
45°	1079	1029	947	880	856	832
55°	818	763	674	604	578	731
65°	556	497	410	352	335	549
75°	296	245	181	150	142	312
85°	74	46	42	40	40	81
90°	2	10	16	21	22	8
95°	45	52	57	59	59	49
105°	174	175	178	180	183	185
115°	326	326	325	324	323	322
125°	475	475	474	473	472	424
135°	613	617	617	616	614	474
145°	745	748	748	748	745	466
155°	853	853	852	855	852	393
165°	929	926	925	930	926	262
175°	966	962	962	967	962	92
180°	968	968	968	968	968	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1779.6	1779.6	1779.6	1779.6	1779.6
2.5°	1785.1	1779.6	1764.6	1779.6	1778.3
5°	1776.9	1771.4	1755.1	1768.7	1766.0
7.5°	1764.6	1759.2	1738.7	1748.3	1744.2
10°	1745.6	1738.7	1714.2	1719.7	1714.2
12.5°	1721.0	1712.8	1682.9	1685.6	1677.4
15°	1692.4	1680.1	1646.1	1643.4	1633.8
17.5°	1659.7	1642.0	1602.5	1595.7	1582.0
20°	1620.2	1602.5	1556.1	1545.2	1527.5
22.5°	1576.6	1556.1	1505.7	1488.0	1474.4
25°	1530.3	1505.7	1449.9	1426.7	1413.1
27.5°	1482.6	1452.6	1394.0	1366.7	1347.7
30°	1432.1	1398.1	1334.0	1300.0	1278.2
32.5°	1379.0	1339.5	1272.7	1231.8	1211.4
35°	1323.1	1279.5	1211.4	1165.1	1140.5
37.5°	1264.5	1219.6	1144.6	1094.2	1069.7
40°	1201.9	1156.9	1079.2	1022.0	997.5
42.5°	1141.9	1094.2	1012.4	953.9	928.0
45°	1079.2	1028.8	947.0	880.3	855.7
47.5°	1015.2	963.4	878.9	809.4	782.2
50°	949.8	896.6	809.4	741.3	715.4
52.5°	883.0	831.2	741.3	671.8	644.5
55°	817.6	763.1	674.5	603.7	577.8
57.5°	753.5	696.3	609.1	536.9	517.8
60°	684.0	629.5	542.3	471.5	449.7
62.5°	621.4	564.1	474.2	410.2	393.8
65°	556.0	497.4	410.2	351.6	335.2
67.5°	487.8	432.0	350.2	298.4	279.3
70°	423.8	366.6	288.9	243.9	230.3
72.5°	355.7	305.2	233.0	196.2	184.0
75°	295.7	245.3	181.2	149.9	141.7
77.5°	233.0	189.4	134.9	113.1	110.4
80°	173.1	133.5	92.7	88.6	87.2
82.5°	121.3	85.8	66.8	64.0	62.7
85°	73.6	46.3	42.2	39.5	39.5
87.5°	31.3	20.4	19.1	17.7	19.1
90°	2.2	10.5	16.5	21.0	22.5
92.5°	19.5	29.2	32.9	35.2	35.9
95°	44.9	51.6	56.9	59.1	59.1
97.5°	71.8	77.8	83.8	86.8	86.8
100°	104.8	107.8	114.5	116.0	116.0
102.5°	139.2	139.9	145.9	148.2	148.9
105°	174.4	175.1	178.1	180.4	182.6
107.5°	211.0	211.8	212.5	215.5	214.8
110°	248.5	250.0	249.2	247.7	250.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	287.4	287.4	285.9	285.9	285.9
115°	326.3	326.3	324.8	324.1	323.3
117.5°	363.0	363.0	362.2	360.0	357.7
120°	399.6	402.6	400.4	396.6	398.1
122.5°	437.8	438.6	437.8	435.6	431.8
125°	475.2	475.2	474.5	473.0	471.5
127.5°	508.9	511.2	509.7	508.2	507.4
130°	544.8	547.1	547.1	545.6	542.6
132.5°	581.5	583.0	582.2	580.8	580.0
135°	612.9	617.4	617.4	615.9	613.7
137.5°	648.1	650.4	651.8	649.6	650.4
140°	683.3	684.8	684.8	684.0	683.3
142.5°	715.5	717.0	716.2	716.2	716.2
145°	744.7	747.6	748.4	747.6	745.4
147.5°	774.6	778.3	777.6	776.8	776.1
150°	801.5	804.5	804.5	804.5	803.8
152.5°	827.0	828.5	829.2	831.5	829.2
155°	853.2	853.2	852.4	855.4	852.4
157.5°	875.6	874.1	874.1	876.4	874.1
160°	895.1	894.3	893.6	895.8	892.1
162.5°	913.0	910.8	910.0	914.5	910.8
165°	928.8	926.5	925.0	929.5	926.5
167.5°	941.5	938.5	938.5	943.0	938.5
170°	952.0	948.2	949.0	953.5	948.2
172.5°	959.4	956.4	956.4	961.7	956.4
175°	966.2	962.4	961.7	966.9	961.7
177.5°	969.2	965.4	965.4	970.7	964.7
180°	967.7	967.7	967.7	967.7	967.7

(END OF REPORT)