

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: P1033111

Luminaire Tested: S124DIW-B1020D1050UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033111
REPORT IS A COMBINATION OF REPORTS P996673 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1050UB40-4F0-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

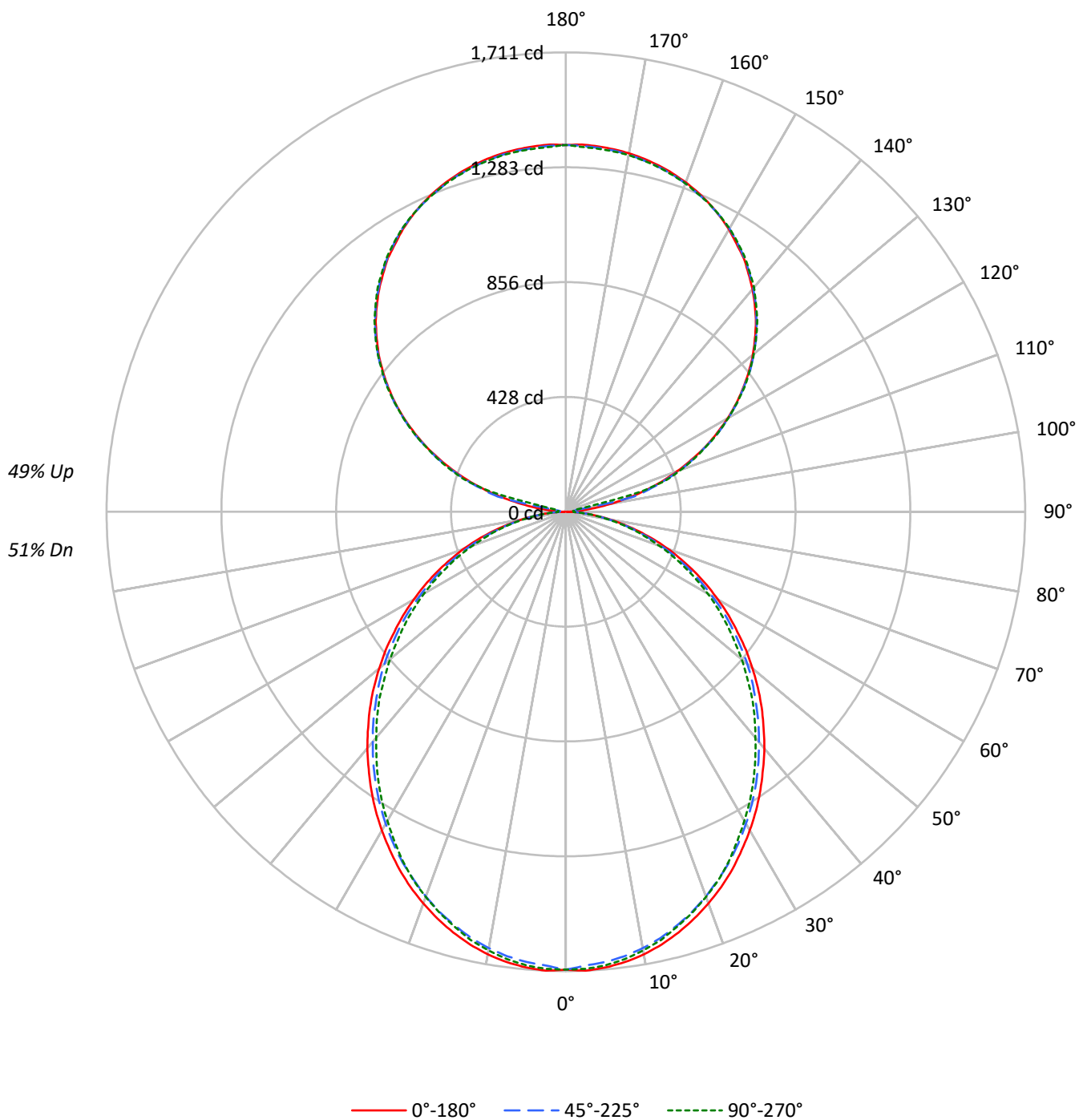
Lumens per Lamp: N/A
Luminaire Lumens: 8607.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 78.3
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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57
1	98	94	90	86	90	87	83	80	73	71	69	61	60	58	50	49	48
2	89	82	76	70	82	76	70	66	64	60	57	54	51	48	44	42	40
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	39	37	34
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	35	32	30
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	32	28	26
6	63	51	43	37	58	47	40	35	41	35	31	34	30	27	29	25	23
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18
9	50	38	31	25	46	36	29	24	31	25	22	26	22	19	22	19	16
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15

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	1.9
10°-20°	452.8	5.3
20°-30°	666.4	7.7
30°-40°	774.7	9.0
40°-50°	774.6	9.0
50°-60°	677.5	7.9
60°-70°	503.0	5.8
70°-80°	285.4	3.3
80°-90°	84.6	1.0
90°-100°	45.4	0.5
100°-110°	298.6	3.5
110°-120°	570.3	6.6
120°-130°	723.9	8.4
130°-140°	774.4	9.0
140°-150°	724.2	8.4
150°-160°	584.0	6.8
160°-170°	376.6	4.4
170°-180°	129.8	1.5
0°-30°	1280.0	14.9
0°-40°	2054.7	23.9
0°-60°	3506.8	40.7
0°-90°	4379.8	50.9
90°-120°	914.3	10.6
90°-150°	3136.8	36.4
90°-180°	4227.0	49.1
0°-180°	8607.0	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°	3	14	22	29	31	8
95°	56	22	22	29	30	69
105°	308	314	319	328	291	322
115°	574	577	576	578	578	565
125°	807	811	809	812	813	721
135°	1001	1000	1004	1006	1008	772
145°	1155	1158	1158	1159	1161	721
155°	1266	1267	1264	1268	1265	584
165°	1335	1330	1330	1338	1329	377
175°	1366	1360	1361	1370	1358	130
180°	1366	1366	1366	1366	1366	

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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°	3.1	14.3	22.5	28.6	30.7
92.5°	15.3	13.3	21.5	27.6	27.6
95°	56.2	21.5	22.5	28.6	29.6
97.5°	107.3	129.8	22.5	27.6	28.6
100°	167.6	186.0	45.0	27.6	28.6
102.5°	235.0	247.3	259.5	29.6	29.6
105°	307.6	313.7	318.8	328.0	291.2
107.5°	374.0	377.0	384.2	389.3	393.4
110°	441.4	444.5	450.6	452.6	455.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	506.8	512.9	515.0	513.9	518.0
115°	574.2	577.3	576.3	578.3	578.3
117.5°	634.5	638.6	641.7	640.6	640.6
120°	695.8	699.9	698.9	700.9	698.9
122.5°	753.0	755.1	757.1	758.1	756.1
125°	807.2	811.3	809.2	812.3	813.3
127.5°	859.3	860.3	865.4	864.4	863.4
130°	909.4	910.4	913.5	914.5	914.5
132.5°	955.3	957.4	961.5	962.5	961.5
135°	1001.3	1000.3	1004.4	1006.4	1008.5
137.5°	1042.2	1042.2	1047.3	1049.3	1048.3
140°	1082.0	1084.1	1086.1	1089.2	1090.2
142.5°	1117.8	1121.9	1122.9	1125.0	1125.0
145°	1154.6	1157.7	1157.7	1158.7	1160.7
147.5°	1183.2	1189.3	1188.3	1189.3	1190.4
150°	1214.9	1219.0	1217.9	1217.9	1219.0
152.5°	1241.4	1244.5	1242.5	1244.5	1243.5
155°	1266.0	1267.0	1263.9	1268.0	1264.9
157.5°	1287.4	1287.4	1283.3	1288.4	1283.3
160°	1305.8	1302.7	1301.7	1307.9	1301.7
162.5°	1322.2	1318.1	1317.1	1323.2	1316.0
165°	1335.4	1330.3	1330.3	1338.5	1329.3
167.5°	1346.7	1341.6	1340.6	1349.7	1339.5
170°	1355.9	1349.7	1350.8	1358.9	1348.7
172.5°	1362.0	1355.9	1356.9	1365.1	1353.8
175°	1366.1	1360.0	1361.0	1370.2	1357.9
177.5°	1369.2	1362.0	1364.1	1372.2	1360.0
180°	1366.1	1366.1	1366.1	1366.1	1366.1

(END OF REPORT)