

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: P1033141

Luminaire Tested: S124DIW-B1020D1340UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033141
REPORT IS A COMBINATION OF REPORTS P996739 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1340UB40-4F0-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

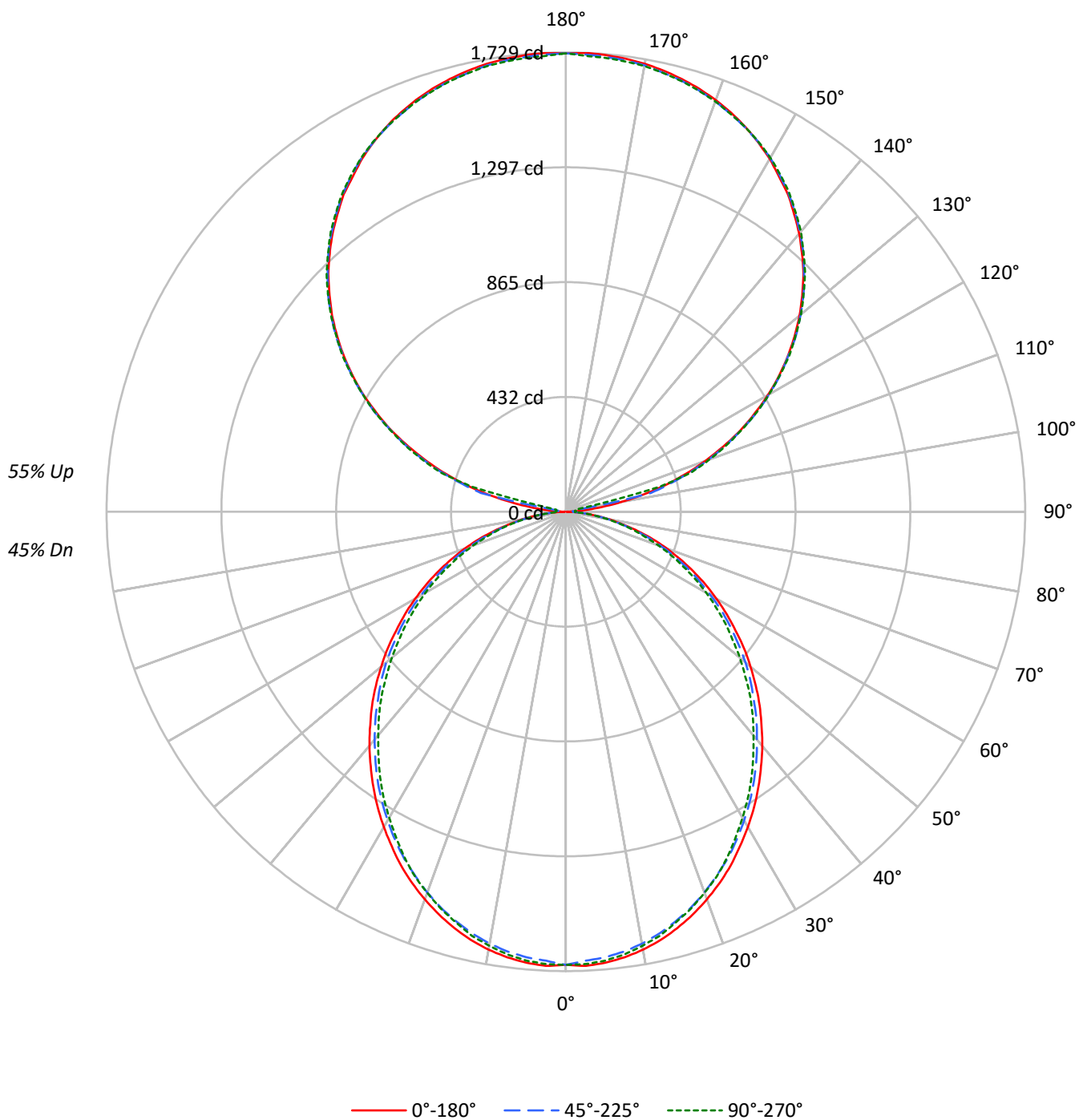
Lumens per Lamp: N/A
Luminaire Lumens: 9719.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 88.9
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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	52	52	52
1	97	92	88	85	88	85	81	78	71	68	66	58	56	54	46	44	43
2	88	81	75	69	80	74	69	64	62	58	55	51	48	45	40	38	37
3	80	71	64	58	73	65	59	54	55	50	46	45	41	38	35	33	31
4	73	63	55	49	67	58	51	46	48	43	39	40	36	33	32	29	27
5	67	56	48	42	61	51	44	39	43	38	34	36	32	28	29	26	23
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	21
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16
9	49	37	30	25	45	35	28	23	29	24	20	25	21	18	20	17	15
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13

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	1.7
10°-20°	452.8	4.7
20°-30°	666.4	6.9
30°-40°	774.7	8.0
40°-50°	774.6	8.0
50°-60°	677.5	7.0
60°-70°	503.0	5.2
70°-80°	285.4	2.9
80°-90°	85.3	0.9
90°-100°	57.3	0.6
100°-110°	377.1	3.9
110°-120°	720.2	7.4
120°-130°	914.2	9.4
130°-140°	978.0	10.1
140°-150°	914.5	9.4
150°-160°	737.5	7.6
160°-170°	475.6	4.9
170°-180°	163.9	1.7
0°-30°	1280.0	13.2
0°-40°	2054.7	21.1
0°-60°	3506.8	36.1
0°-90°	4380.5	45.1
90°-120°	1154.6	11.9
90°-150°	3961.4	40.8
90°-180°	5338.0	54.9
0°-180°	9719.0	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°	4	18	28	36	39	9
95°	71	27	28	36	37	88
105°	388	396	403	414	368	406
115°	725	729	728	730	730	714
125°	1019	1025	1022	1026	1027	910
135°	1265	1263	1268	1271	1274	974
145°	1458	1462	1462	1463	1466	911
155°	1599	1600	1596	1601	1598	737
165°	1686	1680	1680	1690	1679	477
175°	1725	1718	1719	1730	1715	164
180°	1725	1725	1725	1725	1725	

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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°	3.9	18.1	28.4	36.1	38.7
92.5°	19.4	16.8	27.1	34.8	34.8
95°	71.0	27.1	28.4	36.1	37.4
97.5°	135.5	163.9	28.4	34.8	36.1
100°	211.6	234.8	56.8	34.8	36.1
102.5°	296.8	312.3	327.8	37.4	37.4
105°	388.4	396.1	402.6	414.2	367.8
107.5°	472.3	476.1	485.2	491.6	496.8
110°	557.4	561.3	569.1	571.6	575.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	640.0	647.8	650.3	649.1	654.2
115°	725.2	729.1	727.8	730.3	730.3
117.5°	801.3	806.5	810.3	809.1	809.1
120°	878.7	883.9	882.6	885.2	882.6
122.5°	951.0	953.6	956.2	957.5	954.9
125°	1019.4	1024.6	1022.0	1025.8	1027.1
127.5°	1085.2	1086.5	1092.9	1091.6	1090.4
130°	1148.4	1149.7	1153.6	1154.9	1154.9
132.5°	1206.5	1209.1	1214.2	1215.5	1214.2
135°	1264.6	1263.3	1268.4	1271.0	1273.6
137.5°	1316.2	1316.2	1322.6	1325.2	1323.9
140°	1366.5	1369.1	1371.7	1375.5	1376.8
142.5°	1411.7	1416.8	1418.1	1420.7	1420.7
145°	1458.1	1462.0	1462.0	1463.3	1465.9
147.5°	1494.2	1502.0	1500.7	1502.0	1503.3
150°	1534.2	1539.4	1538.1	1538.1	1539.4
152.5°	1567.8	1571.7	1569.1	1571.7	1570.4
155°	1598.8	1600.1	1596.2	1601.3	1597.5
157.5°	1625.9	1625.9	1620.7	1627.2	1620.7
160°	1649.1	1645.2	1643.9	1651.7	1643.9
162.5°	1669.7	1664.6	1663.3	1671.0	1662.0
165°	1686.5	1680.1	1680.1	1690.4	1678.8
167.5°	1700.7	1694.3	1693.0	1704.6	1691.7
170°	1712.3	1704.6	1705.9	1716.2	1703.3
172.5°	1720.1	1712.3	1713.6	1723.9	1709.7
175°	1725.2	1717.5	1718.8	1730.4	1714.9
177.5°	1729.1	1720.1	1722.6	1733.0	1717.5
180°	1725.2	1725.2	1725.2	1725.2	1725.2

(END OF REPORT)