

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: P1033168

Luminaire Tested: S124DIW-B1020D1560UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033168
REPORT IS A COMBINATION OF REPORTS P996803 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D1560UB40-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

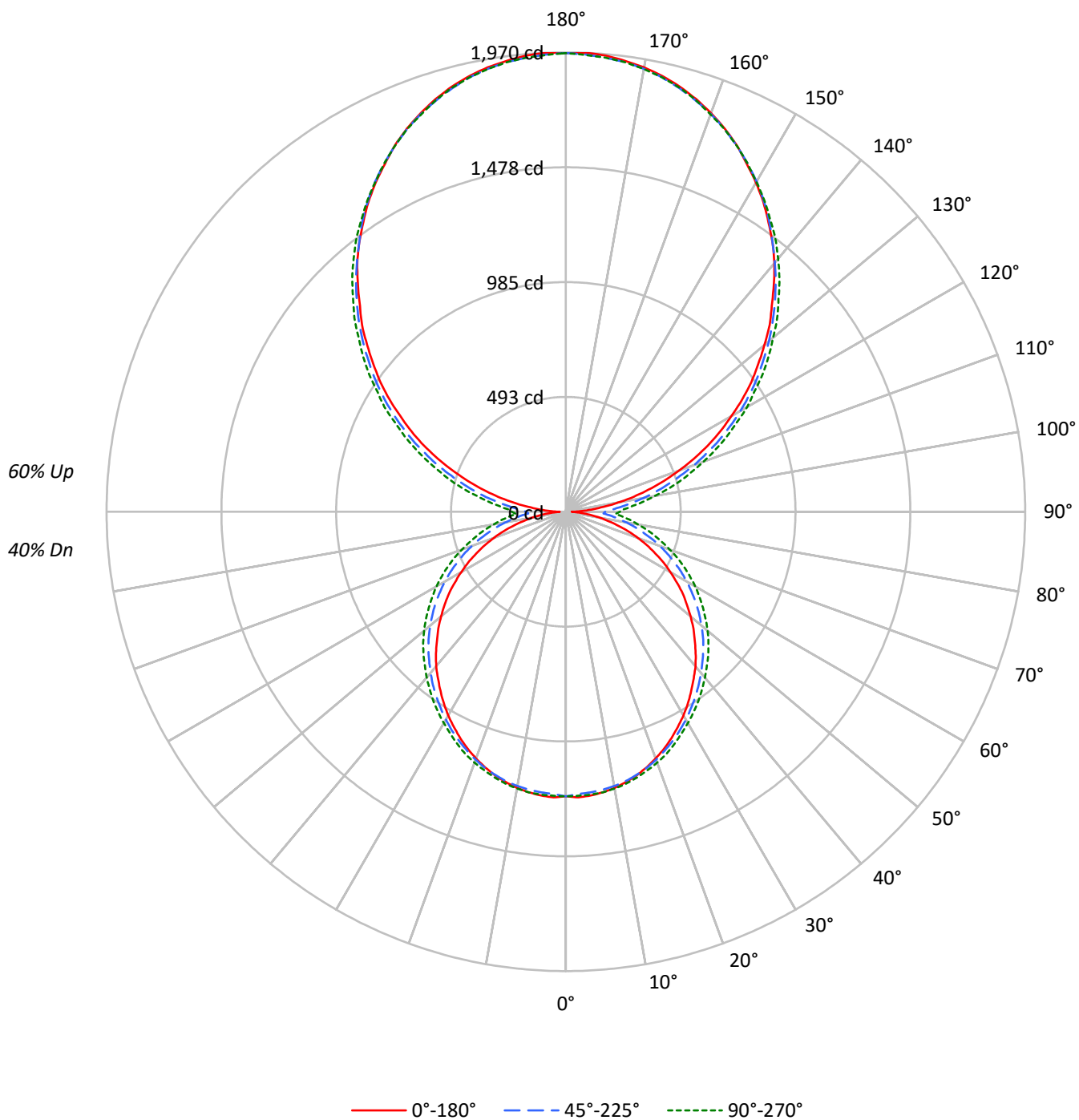
Lumens per Lamp: N/A
Luminaire Lumens: 9623.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 99
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47
1	95	90	86	82	86	82	79	75	67	64	62	53	51	50	40	39	38
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	31
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	31	28	26
4	71	60	52	46	64	55	48	43	45	40	36	36	32	29	27	25	22
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	24	22	19
6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12
10	44	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9952	9952	9952
5°	9979	9692	9710
10°	9915	9502	9475
15°	9822	9287	9209
20°	9684	9055	8951
25°	9530	8800	8673
30°	9362	8546	8390
35°	9172	8286	8137
40°	9020	8037	7876
45°	8795	7804	7644
50°	8604	7539	7400
55°	8405	7283	7120
60°	8097	6965	6856
65°	7759	6622	6538
70°	7349	6230	6169
75°	6775	5792	5820
80°	6128	5350	5453
85°	5268	4902	5156

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8795 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.6	1.2
10°-20°	331.3	3.4
20°-30°	501.0	5.2
30°-40°	606.1	6.3
40°-50°	640.7	6.7
50°-60°	603.0	6.3
60°-70°	500.4	5.2
70°-80°	351.1	3.6
80°-90°	202.2	2.1
90°-100°	246.1	2.6
100°-110°	471.3	4.9
110°-120°	711.0	7.4
120°-130°	893.4	9.3
130°-140°	980.6	10.2
140°-150°	952.7	9.9
150°-160°	798.9	8.3
160°-170°	531.5	5.5
170°-180°	186.1	1.9
0°-30°	947.9	9.9
0°-40°	1554.0	16.1
0°-60°	2797.7	29.1
0°-90°	3851.4	40.0
90°-120°	1428.4	14.8
90°-150°	4255.0	44.2
90°-180°	5772.0	60.0
0°-180°	9623.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1220	1220	1220	1220	1220	
5°	1222	1218	1208	1219	1218	116
15°	1171	1173	1168	1181	1179	330
25°	1072	1080	1084	1099	1100	494
35°	938	954	968	987	991	587
45°	782	808	834	857	864	604
55°	612	641	682	709	718	546
65°	424	467	514	548	559	420
75°	235	286	343	381	394	250
85°	72	130	191	232	246	75
90°	26	98	169	218	232	22
95°	109	168	234	276	288	113
105°	367	396	452	491	506	390
115°	672	684	724	753	761	663
125°	972	970	1003	1026	1031	866
135°	1249	1258	1267	1286	1290	966
145°	1515	1520	1521	1528	1529	948
155°	1734	1734	1733	1739	1733	798
165°	1888	1883	1880	1889	1883	532
175°	1964	1956	1955	1966	1955	186
180°	1967	1967	1967	1967	1967	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1220.4	1220.4	1220.4	1220.4	1220.4
2.5°	1225.9	1221.8	1210.9	1220.4	1219.1
5°	1221.8	1217.7	1208.1	1219.1	1217.7
7.5°	1213.6	1210.9	1202.7	1215.0	1213.6
10°	1202.7	1201.3	1194.5	1206.8	1205.4
12.5°	1187.6	1187.6	1183.5	1194.5	1194.5
15°	1171.2	1172.6	1168.5	1180.8	1179.4
17.5°	1149.4	1153.5	1152.1	1164.4	1163.0
20°	1126.1	1130.2	1131.6	1145.3	1145.3
22.5°	1100.2	1105.6	1108.4	1122.0	1124.8
25°	1071.5	1079.7	1083.8	1098.8	1100.2
27.5°	1040.0	1052.3	1057.8	1071.5	1072.8
30°	1008.6	1019.5	1029.1	1044.1	1046.9
32.5°	974.4	988.1	999.0	1016.8	1019.5
35°	937.5	953.9	967.6	986.7	990.8
37.5°	900.6	919.8	936.2	955.3	959.4
40°	865.1	882.9	902.0	922.5	928.0
42.5°	824.1	844.6	867.8	891.1	895.2
45°	781.7	807.7	833.7	856.9	863.7
47.5°	742.1	768.1	798.1	821.4	829.6
50°	698.4	728.4	758.5	785.8	794.0
52.5°	654.6	684.7	720.2	747.6	755.8
55°	612.3	641.0	682.0	709.3	717.5
57.5°	564.4	600.0	639.6	672.4	679.2
60°	518.0	553.5	598.6	630.0	641.0
62.5°	472.9	512.5	557.6	589.0	600.0
65°	423.7	467.4	513.9	548.0	559.0
67.5°	377.2	423.7	472.9	507.0	518.0
70°	329.4	375.8	427.8	464.7	474.2
72.5°	282.9	330.7	386.8	422.3	433.2
75°	235.1	285.6	343.0	381.3	393.6
77.5°	190.0	243.3	303.4	341.7	355.3
80°	149.0	203.6	263.8	304.8	315.7
82.5°	108.0	165.4	225.5	267.9	280.2
85°	72.4	129.8	191.3	232.3	246.0
87.5°	45.1	101.1	161.3	200.9	213.2
90°	26.5	97.8	168.8	217.5	231.5
92.5°	60.1	127.6	194.0	236.9	249.3
95°	109.1	167.9	234.5	276.0	288.3
97.5°	162.4	214.2	282.5	324.1	336.4
100°	228.0	269.7	336.7	376.6	386.1
102.5°	298.0	329.6	393.7	433.8	446.2
105°	366.8	395.6	452.3	491.0	506.5
107.5°	441.3	466.0	515.4	555.6	563.7
110°	516.0	538.2	584.5	612.8	628.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	593.8	610.2	652.2	682.2	693.2
115°	671.5	683.8	724.4	753.0	761.1
117.5°	746.0	754.2	793.7	817.8	824.2
120°	819.2	829.4	864.5	884.2	898.1
122.5°	896.8	898.3	933.7	956.5	958.4
125°	971.5	970.1	1002.8	1025.7	1030.8
127.5°	1040.0	1043.1	1067.4	1089.0	1097.0
130°	1111.6	1114.8	1136.7	1158.2	1160.3
132.5°	1186.1	1187.8	1202.7	1222.9	1229.6
135°	1248.6	1257.8	1267.4	1286.2	1289.9
137.5°	1320.1	1323.4	1331.8	1347.8	1356.2
140°	1391.6	1393.4	1394.7	1411.0	1416.2
142.5°	1455.8	1458.8	1455.9	1470.9	1476.4
145°	1515.1	1519.8	1521.3	1528.0	1528.9
147.5°	1575.9	1582.1	1580.6	1580.5	1584.4
150°	1630.7	1635.4	1635.4	1635.4	1633.9
152.5°	1681.0	1684.1	1685.6	1690.2	1685.6
155°	1734.3	1734.3	1732.8	1738.8	1732.8
157.5°	1779.9	1776.9	1776.9	1781.4	1776.9
160°	1819.5	1817.9	1816.4	1821.0	1813.4
162.5°	1856.0	1851.4	1849.9	1859.0	1851.4
165°	1887.9	1883.4	1880.3	1889.4	1883.4
167.5°	1913.8	1907.7	1907.7	1916.8	1907.7
170°	1935.1	1927.5	1929.0	1938.1	1927.5
172.5°	1950.3	1944.2	1944.2	1954.9	1944.2
175°	1964.0	1956.4	1954.9	1965.5	1954.9
177.5°	1970.1	1962.5	1962.5	1973.1	1960.9
180°	1967.0	1967.0	1967.0	1967.0	1967.0

(END OF REPORT)