

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: P1033110

Luminaire Tested: S124DIW-B1020D1050UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033110
REPORT IS A COMBINATION OF REPORTS P996671 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-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

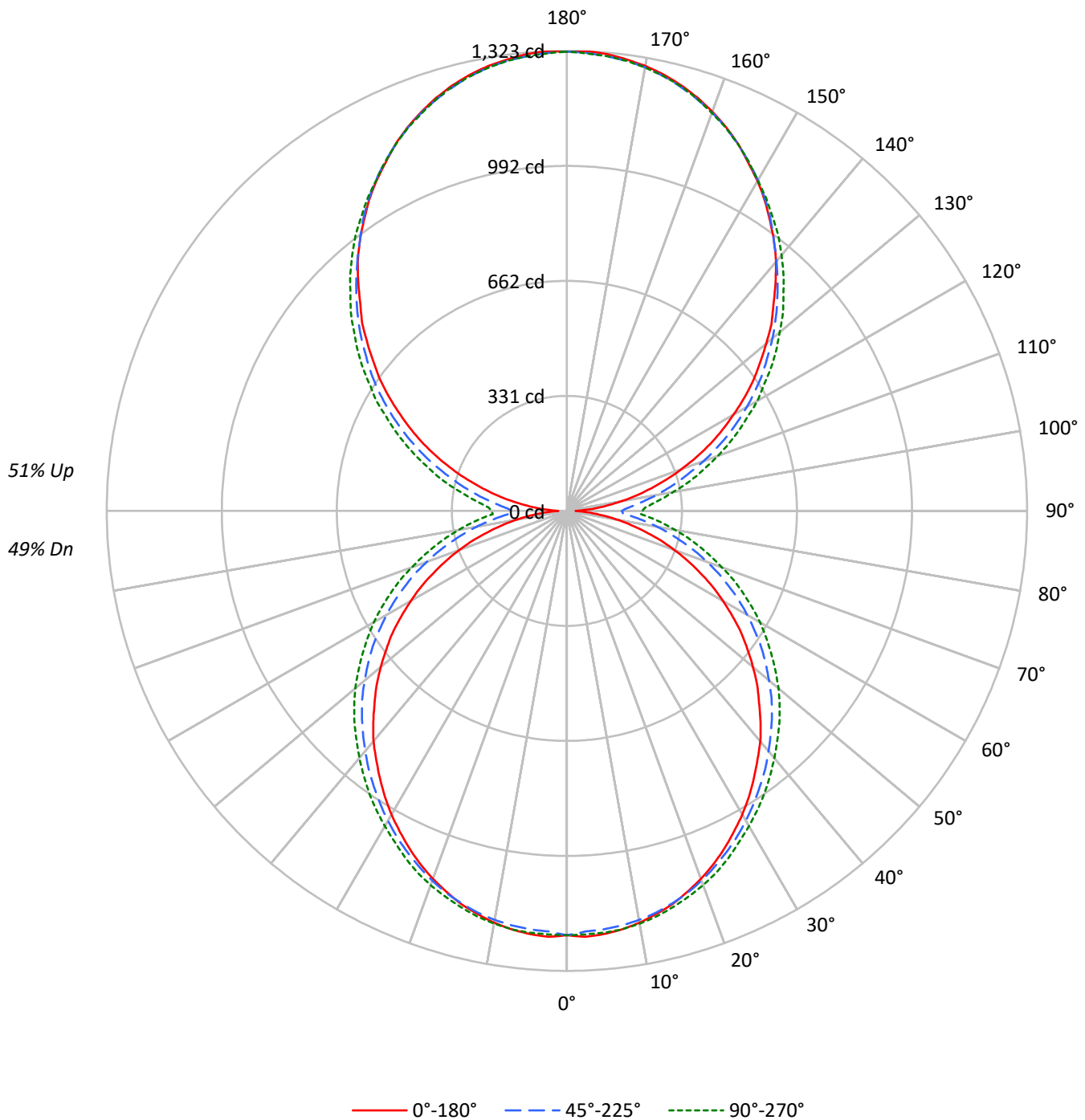
Lumens per Lamp: N/A
Luminaire Lumens: 7828.9 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49		
1	97	92	88	84	89	85	81	78	71	68	66	59	57	55	47	46	45	39		
2	88	80	73	68	80	73	68	63	62	57	54	51	48	45	41	39	37	32		
3	80	70	62	56	73	64	57	52	54	49	45	45	41	38	36	33	31	27		
4	73	61	53	47	66	57	49	44	48	42	38	40	35	32	32	29	26	23		
5	67	55	46	40	61	50	43	37	43	37	32	35	31	28	29	25	23	19		
6	61	49	40	34	56	45	38	32	38	32	28	32	27	24	26	23	20	17		
7	57	44	36	30	52	41	33	28	35	29	25	29	24	21	24	20	18	15		
8	52	40	32	26	48	37	30	25	32	26	22	26	22	19	22	18	16	13		
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12		
10	46	33	26	21	42	31	24	20	27	21	17	22	18	15	18	15	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	1.5
10°-20°	331.3	4.2
20°-30°	501.0	6.4
30°-40°	606.1	7.7
40°-50°	640.7	8.2
50°-60°	603.0	7.7
60°-70°	500.4	6.4
70°-80°	351.1	4.5
80°-90°	200.8	2.6
90°-100°	204.0	2.6
100°-110°	345.2	4.4
110°-120°	496.7	6.3
120°-130°	610.8	7.8
130°-140°	663.2	8.5
140°-150°	640.7	8.2
150°-160°	536.5	6.9
160°-170°	356.9	4.6
170°-180°	125.0	1.6
0°-30°	947.9	12.1
0°-40°	1554.0	19.8
0°-60°	2797.7	35.7
0°-90°	3850.0	49.2
90°-120°	1045.8	13.4
90°-150°	2960.5	37.8
90°-180°	3979.0	50.8
0°-180°	7828.9	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°	25	91	158	204	216	19
95°	79	133	196	236	249	81
105°	250	279	333	371	385	266
115°	454	466	508	537	545	448
125°	654	653	686	710	716	583
135°	839	846	855	875	880	650
145°	1018	1021	1022	1029	1031	637
155°	1165	1165	1164	1168	1164	536
165°	1268	1265	1263	1269	1265	357
175°	1319	1314	1313	1320	1313	125
180°	1321	1321	1321	1321	1321	

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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°	25.0	90.8	157.8	203.5	216.5
92.5°	47.1	108.1	172.1	213.4	225.3
95°	79.1	133.4	196.5	236.5	248.8
97.5°	114.5	162.2	226.5	266.1	278.4
100°	158.0	197.7	260.2	299.2	308.7
102.5°	205.0	236.1	296.2	334.9	346.8
105°	250.3	278.7	333.3	370.6	384.6
107.5°	300.4	324.6	373.5	411.7	420.3
110°	350.1	371.3	418.1	447.5	461.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	401.9	418.3	461.4	491.4	502.4
115°	453.6	465.9	507.6	536.7	545.2
117.5°	503.7	511.9	551.9	577.5	585.3
120°	552.3	560.5	597.2	619.4	632.3
122.5°	604.4	605.5	641.3	665.7	670.1
125°	654.2	652.8	686.0	709.9	716.0
127.5°	700.2	701.9	727.1	749.7	758.3
130°	747.8	749.5	771.4	794.0	798.1
132.5°	797.9	798.5	813.9	835.2	842.4
135°	839.4	845.5	855.1	875.0	880.1
137.5°	887.4	889.2	896.6	914.1	922.0
140°	935.4	936.2	937.5	954.3	960.0
142.5°	978.1	980.1	977.7	992.7	998.2
145°	1017.9	1020.6	1021.6	1028.8	1031.2
147.5°	1058.8	1062.5	1061.5	1061.8	1066.2
150°	1095.6	1098.2	1098.2	1098.2	1097.2
152.5°	1128.9	1130.9	1132.0	1135.0	1132.0
155°	1164.7	1164.7	1163.6	1167.7	1163.6
157.5°	1195.3	1193.3	1193.3	1196.3	1193.3
160°	1221.9	1220.8	1219.8	1222.9	1217.8
162.5°	1246.4	1243.3	1242.3	1248.4	1243.3
165°	1267.8	1264.8	1262.7	1268.9	1264.8
167.5°	1285.2	1281.1	1281.1	1287.2	1281.1
170°	1299.5	1294.4	1295.4	1301.5	1294.4
172.5°	1309.7	1305.6	1305.6	1312.8	1305.6
175°	1318.9	1313.8	1312.8	1319.9	1312.8
177.5°	1323.0	1317.9	1317.9	1325.0	1316.9
180°	1321.0	1321.0	1321.0	1321.0	1321.0

(END OF REPORT)