

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: P1033233

Luminaire Tested: S124DIW-B1020D770UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033233
REPORT IS A COMBINATION OF REPORTS P996944 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D770UB50-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

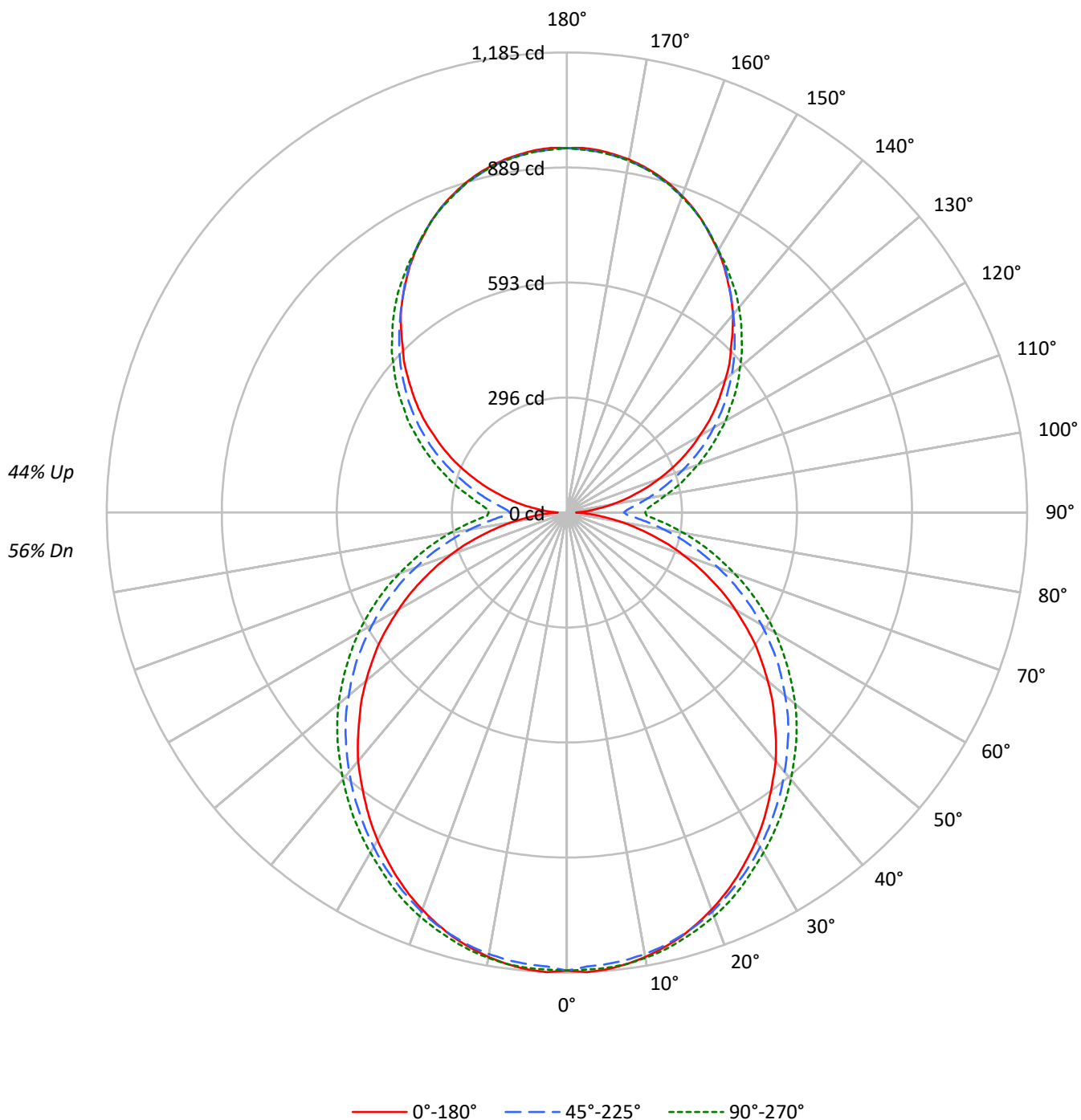
Lumens per Lamp: N/A
Luminaire Lumens: 6628.9 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62
1	98	93	89	85	91	87	83	79	74	72	69	63	61	59	53	51	50
2	89	81	74	68	82	75	69	64	65	60	56	55	51	48	46	43	41
3	81	71	63	56	75	66	59	53	57	51	47	48	44	40	40	37	34
4	74	62	54	47	68	58	50	45	50	44	39	43	38	34	36	32	29
5	68	55	47	40	62	52	44	38	45	38	34	38	33	30	32	28	25
6	62	49	41	35	57	46	39	33	40	34	29	34	29	26	29	25	22
7	57	45	36	30	53	42	34	29	36	30	26	31	26	23	26	23	20
8	53	40	32	27	49	38	31	26	33	27	23	28	24	20	24	20	18
9	50	37	29	24	46	35	28	23	30	24	20	26	21	18	22	19	16
10	46	34	26	21	43	32	25	20	28	22	18	24	20	16	21	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9622	9622	9622
5°	9649	9371	9388
10°	9586	9187	9160
15°	9496	8980	8904
20°	9363	8755	8654
25°	9213	8507	8386
30°	9052	8262	8112
35°	8868	8012	7867
40°	8720	7771	7614
45°	8503	7545	7391
50°	8318	7289	7155
55°	8126	7042	6883
60°	7829	6734	6628
65°	7501	6402	6320
70°	7103	6023	5965
75°	6550	5602	5627
80°	5923	5172	5272
85°	5094	4741	4985

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8503 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	1.7
10°-20°	320.3	4.8
20°-30°	484.4	7.3
30°-40°	586.0	8.8
40°-50°	619.5	9.3
50°-60°	583.0	8.8
60°-70°	483.8	7.3
70°-80°	339.5	5.1
80°-90°	193.4	2.9
90°-100°	175.1	2.6
100°-110°	267.6	4.0
110°-120°	367.9	5.5
120°-130°	442.4	6.7
130°-140°	474.9	7.2
140°-150°	455.9	6.9
150°-160°	381.2	5.7
160°-170°	253.6	3.8
170°-180°	88.8	1.3
0°-30°	916.5	13.8
0°-40°	1502.5	22.7
0°-60°	2705.0	40.8
0°-90°	3721.6	56.1
90°-120°	810.6	12.2
90°-150°	2183.8	32.9
90°-180°	2907.0	43.9
0°-180°	6628.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1181	1177	1168	1179	1177	112
15°	1132	1134	1130	1142	1140	319
25°	1036	1044	1048	1062	1064	477
35°	906	922	936	954	958	568
45°	756	781	806	828	835	584
55°	592	620	659	686	694	528
65°	410	452	497	530	540	406
75°	227	276	332	369	381	241
85°	70	126	185	225	238	73
90°	23	84	147	189	202	18
95°	61	111	170	208	220	61
105°	181	208	260	295	308	193
115°	324	336	377	406	414	320
125°	466	465	497	521	527	416
135°	597	601	611	630	636	462
145°	724	725	726	733	736	453
155°	827	827	827	830	827	381
165°	901	899	897	902	899	254
175°	937	933	933	938	933	89
180°	938	938	938	938	938	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.0	1180.0	1180.0	1180.0	1180.0
2.5°	1185.3	1181.3	1170.7	1180.0	1178.6
5°	1181.3	1177.3	1168.1	1178.6	1177.3
7.5°	1173.4	1170.7	1162.8	1174.7	1173.4
10°	1162.8	1161.5	1154.9	1166.8	1165.4
12.5°	1148.3	1148.3	1144.3	1154.9	1154.9
15°	1132.4	1133.7	1129.8	1141.7	1140.3
17.5°	1111.3	1115.2	1113.9	1125.8	1124.5
20°	1088.8	1092.8	1094.1	1107.3	1107.3
22.5°	1063.7	1069.0	1071.6	1084.8	1087.5
25°	1035.9	1043.9	1047.8	1062.4	1063.7
27.5°	1005.6	1017.4	1022.7	1035.9	1037.3
30°	975.2	985.7	995.0	1009.5	1012.2
32.5°	942.1	955.3	965.9	983.1	985.7
35°	906.4	922.3	935.5	954.0	958.0
37.5°	870.8	889.3	905.1	923.6	927.6
40°	836.4	853.6	872.1	891.9	897.2
42.5°	796.8	816.6	839.1	861.5	865.5
45°	755.8	780.9	806.0	828.5	835.1
47.5°	717.5	742.6	771.7	794.1	802.1
50°	675.2	704.3	733.4	759.8	767.7
52.5°	632.9	662.0	696.4	722.8	730.7
55°	592.0	619.7	659.4	685.8	693.7
57.5°	545.7	580.1	618.4	650.1	656.7
60°	500.8	535.1	578.8	609.1	619.7
62.5°	457.2	495.5	539.1	569.5	580.1
65°	409.6	451.9	496.8	529.9	540.4
67.5°	364.7	409.6	457.2	490.2	500.8
70°	318.4	363.4	413.6	449.3	458.5
72.5°	273.5	319.8	373.9	408.3	418.9
75°	227.3	276.2	331.7	368.7	380.6
77.5°	183.7	235.2	293.3	330.3	343.6
80°	144.0	196.9	255.0	294.7	305.2
82.5°	104.4	159.9	218.0	259.0	270.9
85°	70.0	125.5	185.0	224.6	237.8
87.5°	43.6	97.8	155.9	194.2	206.1
90°	23.3	84.2	146.8	189.4	201.5
92.5°	38.7	94.4	154.8	194.0	205.3
95°	60.7	110.9	170.2	207.9	219.8
97.5°	85.6	129.7	189.7	226.9	238.8
100°	116.1	153.4	211.5	248.6	257.8
102.5°	149.5	179.3	235.3	271.9	283.1
105°	181.0	208.1	259.9	295.1	307.9
107.5°	216.6	239.8	286.7	322.6	331.2
110°	251.6	271.5	317.0	346.0	358.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	287.9	303.8	346.0	375.1	385.7
115°	324.4	336.3	377.1	405.5	414.0
117.5°	359.9	367.9	406.8	432.3	440.7
120°	394.2	401.1	437.2	460.0	472.0
122.5°	431.2	431.9	466.9	491.1	496.8
125°	466.2	464.9	497.2	520.8	527.3
127.5°	498.9	499.7	524.7	547.0	555.5
130°	532.4	533.2	554.4	576.7	581.7
132.5°	568.0	568.0	583.2	604.2	611.4
135°	597.1	601.4	610.7	630.4	636.2
137.5°	631.2	632.0	638.8	656.4	663.7
140°	665.3	665.4	666.7	683.2	689.1
142.5°	695.2	696.6	694.6	709.1	714.4
145°	723.5	725.1	725.8	733.0	736.1
147.5°	752.5	754.9	754.1	754.7	759.3
150°	778.7	780.3	780.3	780.3	779.5
152.5°	802.0	803.5	804.2	806.4	804.2
155°	827.4	827.4	826.7	829.6	826.7
157.5°	849.2	847.8	847.8	849.9	847.8
160°	868.1	867.4	866.6	868.8	865.2
162.5°	885.5	883.3	882.6	887.0	883.3
165°	900.8	898.6	897.1	901.5	898.6
167.5°	913.1	910.2	910.2	914.5	910.2
170°	923.3	919.6	920.4	924.7	919.6
172.5°	930.5	927.6	927.6	932.7	927.6
175°	937.0	933.4	932.7	937.8	932.7
177.5°	940.0	936.3	936.3	941.4	935.6
180°	938.5	938.5	938.5	938.5	938.5

(END OF REPORT)