

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: P1033209

Luminaire Tested: S124DIW-B1020D770UB27-4F0-XX-W2A-D1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033209
REPORT IS A COMBINATION OF REPORTS P996887 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D770UB27-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

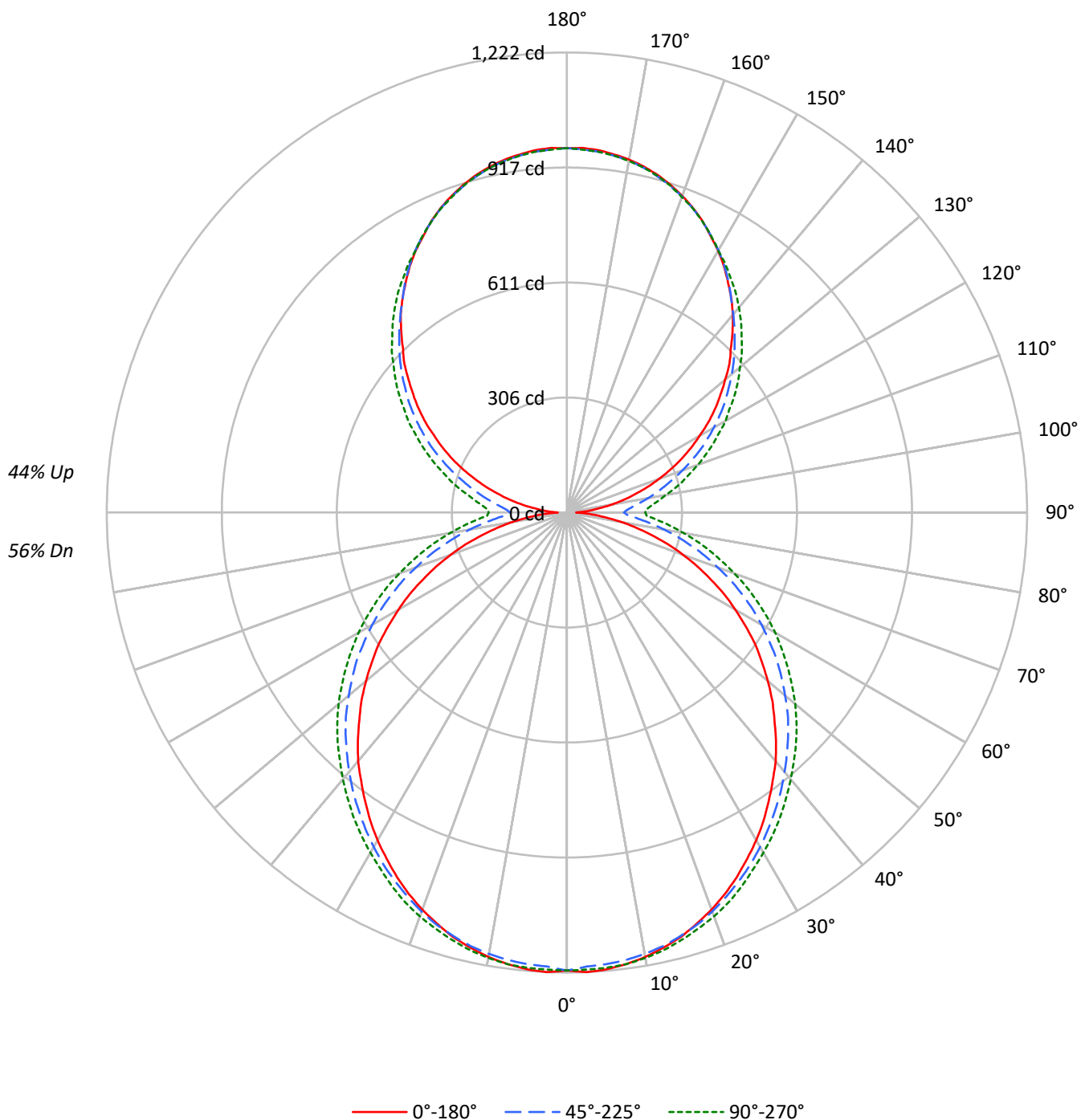
Lumens per Lamp: N/A
Luminaire Lumens: 6835.0 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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°	9921	9921	9921
5°	9948	9663	9680
10°	9884	9472	9445
15°	9791	9259	9181
20°	9654	9027	8923
25°	9499	8772	8646
30°	9333	8519	8363
35°	9144	8261	8111
40°	8992	8012	7851
45°	8768	7780	7620
50°	8577	7515	7378
55°	8379	7260	7098
60°	8072	6942	6834
65°	7734	6601	6517
70°	7324	6209	6151
75°	6752	5776	5802
80°	6108	5332	5436
85°	5254	4887	5140

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8768 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	1.7
10°-20°	330.3	4.8
20°-30°	499.4	7.3
30°-40°	604.2	8.8
40°-50°	638.7	9.3
50°-60°	601.1	8.8
60°-70°	498.8	7.3
70°-80°	350.0	5.1
80°-90°	199.4	2.9
90°-100°	180.6	2.6
100°-110°	275.9	4.0
110°-120°	379.3	5.5
120°-130°	456.2	6.7
130°-140°	489.6	7.2
140°-150°	470.1	6.9
150°-160°	393.0	5.7
160°-170°	261.5	3.8
170°-180°	91.6	1.3
0°-30°	945.0	13.8
0°-40°	1549.1	22.7
0°-60°	2789.0	40.8
0°-90°	3837.3	56.1
90°-120°	835.8	12.2
90°-150°	2251.7	32.9
90°-180°	2998.0	43.9
0°-180°	6835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1217	1217	1217	1217	1217	
5°	1218	1214	1204	1215	1214	116
15°	1168	1169	1165	1177	1176	329
25°	1068	1076	1080	1095	1097	492
35°	935	951	965	984	988	585
45°	779	805	831	854	861	602
55°	610	639	680	707	715	544
65°	422	466	512	546	557	419
75°	234	285	342	380	392	249
85°	72	129	191	232	245	75
90°	24	87	151	195	208	18
95°	63	114	175	214	227	63
105°	187	215	268	304	318	199
115°	334	347	389	418	427	330
125°	481	479	513	537	544	429
135°	616	620	630	650	656	477
145°	746	748	748	756	759	467
155°	853	853	852	855	852	393
165°	929	926	925	930	926	262
175°	966	962	962	967	962	92
180°	968	968	968	968	968	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1216.6	1216.6	1216.6	1216.6	1216.6
2.5°	1222.1	1218.0	1207.1	1216.6	1215.3
5°	1218.0	1213.9	1204.4	1215.3	1213.9
7.5°	1209.8	1207.1	1198.9	1211.2	1209.8
10°	1198.9	1197.6	1190.7	1203.0	1201.6
12.5°	1183.9	1183.9	1179.8	1190.7	1190.7
15°	1167.6	1168.9	1164.9	1177.1	1175.8
17.5°	1145.8	1149.9	1148.5	1160.8	1159.4
20°	1122.6	1126.7	1128.1	1141.7	1141.7
22.5°	1096.7	1102.2	1104.9	1118.5	1121.3
25°	1068.1	1076.3	1080.4	1095.4	1096.7
27.5°	1036.8	1049.1	1054.5	1068.1	1069.5
30°	1005.5	1016.4	1025.9	1040.9	1043.6
32.5°	971.4	985.0	995.9	1013.6	1016.4
35°	934.6	951.0	964.6	983.7	987.7
37.5°	897.8	916.9	933.3	952.3	956.4
40°	862.4	880.1	899.2	919.6	925.1
42.5°	821.5	842.0	865.1	888.3	892.4
45°	779.3	805.2	831.1	854.2	861.0
47.5°	739.8	765.7	795.6	818.8	827.0
50°	696.2	726.2	756.1	783.4	791.6
52.5°	652.6	682.6	718.0	745.2	753.4
55°	610.4	639.0	679.8	707.1	715.3
57.5°	562.7	598.1	637.6	670.3	677.1
60°	516.4	551.8	596.7	628.1	639.0
62.5°	471.4	510.9	555.9	587.2	598.1
65°	422.3	465.9	512.3	546.3	557.2
67.5°	376.0	422.3	471.4	505.5	516.4
70°	328.3	374.7	426.4	463.2	472.8
72.5°	282.0	329.7	385.6	421.0	431.9
75°	234.3	284.7	342.0	380.1	392.4
77.5°	189.4	242.5	302.5	340.6	354.2
80°	148.5	203.0	262.9	303.8	314.7
82.5°	107.6	164.9	224.8	267.0	279.3
85°	72.2	129.4	190.7	231.6	245.2
87.5°	45.0	100.8	160.8	200.3	212.5
90°	24.0	86.8	151.4	195.4	207.8
92.5°	39.9	97.3	159.6	200.1	211.7
95°	62.6	114.3	175.4	214.4	226.7
97.5°	88.1	133.7	195.5	233.9	246.2
100°	119.8	158.2	218.0	256.3	265.9
102.5°	154.2	184.9	242.6	280.4	292.0
105°	186.7	214.6	268.0	304.4	317.5
107.5°	223.3	247.2	295.6	332.7	341.5
110°	259.4	280.0	326.9	356.7	369.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	296.9	313.3	356.7	386.7	397.6
115°	334.5	346.7	388.8	418.1	426.8
117.5°	371.2	379.3	419.4	445.8	454.4
120°	406.4	413.5	450.8	474.3	486.7
122.5°	444.6	445.4	481.4	506.4	512.2
125°	480.6	479.3	512.6	537.0	543.7
127.5°	514.3	515.3	541.0	564.1	572.8
130°	548.9	549.8	571.6	594.6	599.8
132.5°	585.6	585.7	601.3	623.0	630.4
135°	615.6	620.1	629.7	650.0	655.9
137.5°	650.8	651.8	658.6	676.8	684.5
140°	686.0	686.2	687.5	704.4	710.5
142.5°	716.9	718.4	716.2	731.2	736.6
145°	746.1	747.6	748.4	755.8	759.0
147.5°	776.0	778.3	777.6	778.2	782.9
150°	802.9	804.5	804.5	804.5	803.8
152.5°	827.0	828.5	829.2	831.5	829.2
155°	853.2	853.2	852.4	855.4	852.4
157.5°	875.6	874.1	874.1	876.4	874.1
160°	895.1	894.3	893.6	895.8	892.1
162.5°	913.0	910.8	910.0	914.5	910.8
165°	928.8	926.5	925.0	929.5	926.5
167.5°	941.5	938.5	938.5	943.0	938.5
170°	952.0	948.2	949.0	953.5	948.2
172.5°	959.4	956.4	956.4	961.7	956.4
175°	966.2	962.4	961.7	966.9	961.7
177.5°	969.2	965.4	965.4	970.7	964.7
180°	967.7	967.7	967.7	967.7	967.7

(END OF REPORT)