

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: P1033208

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

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033208
REPORT IS A COMBINATION OF REPORTS P996886 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-D
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

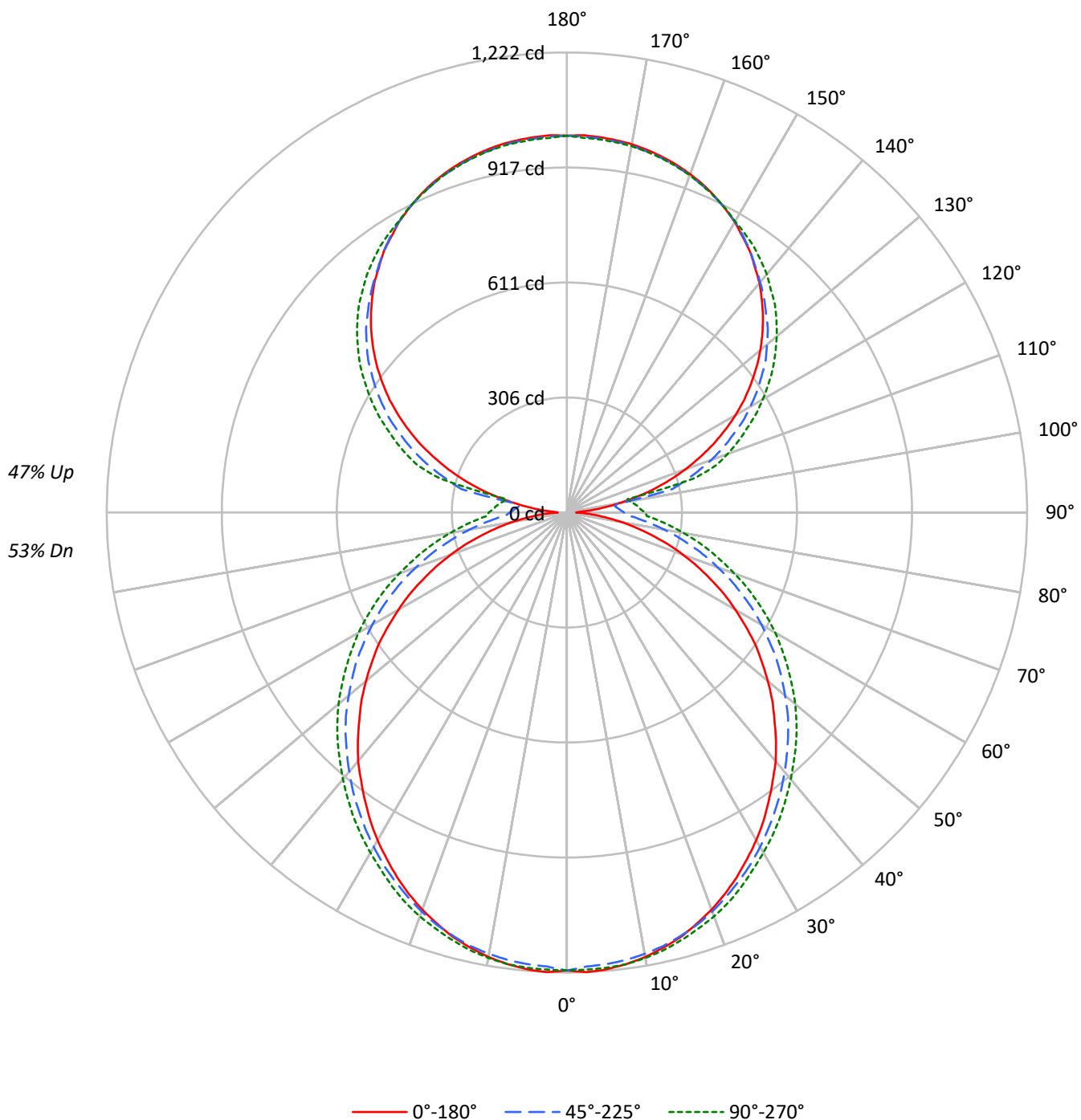
Lumens per Lamp: N/A
Luminaire Lumens: 7247.0 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 70
Input Voltage (V):
Input Current (A_{in}): 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
RCR																	
0	108	108	108	108	100	100	100	100	85	85	85		71	71	71		59
1	97	93	88	84	90	86	82	79	73	70	68		61	59	57		50
2	88	80	74	68	81	74	69	64	63	59	55		53	50	47		44
3	80	70	62	56	74	65	58	53	55	50	46		47	43	39		38
4	73	62	53	47	67	57	50	44	49	43	39		41	37	33		34
5	67	55	46	40	62	51	43	38	44	38	33		37	32	29		30
6	62	49	41	35	57	46	38	33	39	33	29		33	29	25		28
7	57	44	36	30	53	41	34	29	36	30	25		30	25	22		25
8	53	40	32	27	49	37	30	25	32	27	22		28	23	19		23
9	49	37	29	24	45	34	27	22	30	24	20		25	21	17		21
10	46	34	26	21	42	31	25	20	27	22	18		23	19	16		20

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	1.6
10°-20°	330.3	4.6
20°-30°	499.4	6.9
30°-40°	604.2	8.3
40°-50°	638.7	8.8
50°-60°	601.1	8.3
60°-70°	498.8	6.9
70°-80°	350.0	4.8
80°-90°	199.4	2.8
90°-100°	150.7	2.1
100°-110°	305.8	4.2
110°-120°	476.2	6.6
120°-130°	563.2	7.8
130°-140°	581.6	8.0
140°-150°	533.4	7.4
150°-160°	427.9	5.9
160°-170°	275.9	3.8
170°-180°	95.1	1.3
0°-30°	945.0	13.0
0°-40°	1549.1	21.4
0°-60°	2789.0	38.5
0°-90°	3837.3	52.9
90°-120°	932.7	12.9
90°-150°	2610.9	36.0
90°-180°	3410.0	47.1
0°-180°	7247.0	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	17
95°	59	78	135	176	189	65
105°	238	269	324	364	348	250
115°	429	443	486	518	527	423
125°	597	598	631	659	668	533
135°	736	736	748	771	781	568
145°	847	848	848	857	864	530
155°	928	928	926	929	927	428
165°	978	975	975	981	974	276
175°	1001	996	997	1004	995	95
180°	1001	1001	1001	1001	1001	

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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°	31.6	77.8	142.4	185.1	196.0
95°	58.9	78.4	135.0	176.3	189.3
97.5°	94.9	151.0	128.2	167.3	180.4
100°	137.8	186.6	136.4	160.5	170.9
102.5°	187.2	226.2	286.8	153.9	164.8
105°	237.6	269.3	323.5	364.3	348.2
107.5°	286.3	311.6	364.6	402.4	414.9
110°	334.3	355.6	407.8	440.6	453.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	380.8	401.7	448.1	477.3	491.2
115°	428.9	443.3	486.2	517.7	527.2
117.5°	473.1	484.2	527.3	555.2	566.1
120°	516.6	523.7	562.4	591.2	600.6
122.5°	558.5	560.0	598.3	626.2	634.3
125°	596.8	598.5	631.0	659.1	668.1
127.5°	634.9	634.4	665.3	689.2	697.9
130°	670.3	669.7	693.7	719.0	727.2
132.5°	704.0	704.1	723.5	747.4	754.8
135°	736.3	735.5	748.1	771.4	781.0
137.5°	766.2	764.9	774.1	796.0	802.1
140°	795.4	795.6	798.4	818.4	825.9
142.5°	820.3	823.3	822.7	839.2	844.6
145°	847.3	848.1	848.1	857.1	864.0
147.5°	868.2	871.3	870.6	872.7	878.9
150°	891.4	893.0	892.3	892.3	893.0
152.5°	909.5	911.8	910.3	911.8	911.0
155°	927.5	928.2	926.0	929.0	926.7
157.5°	943.2	943.2	940.2	943.9	940.2
160°	956.7	954.4	953.7	958.2	953.7
162.5°	968.6	965.7	964.9	969.4	964.2
165°	978.4	974.6	974.6	980.6	973.9
167.5°	986.6	982.9	982.1	988.9	981.4
170°	993.3	988.9	989.6	995.6	988.1
172.5°	997.8	993.3	994.1	1000.1	991.9
175°	1000.8	996.3	997.1	1003.8	994.8
177.5°	1003.1	997.8	999.3	1005.3	996.3
180°	1000.8	1000.8	1000.8	1000.8	1000.8

(END OF REPORT)