

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: P1033226

Luminaire Tested: S124DIW-B1020D770UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033226
REPORT IS A COMBINATION OF REPORTS P996934 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D770UB40-4F0-XX-W2A-D
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

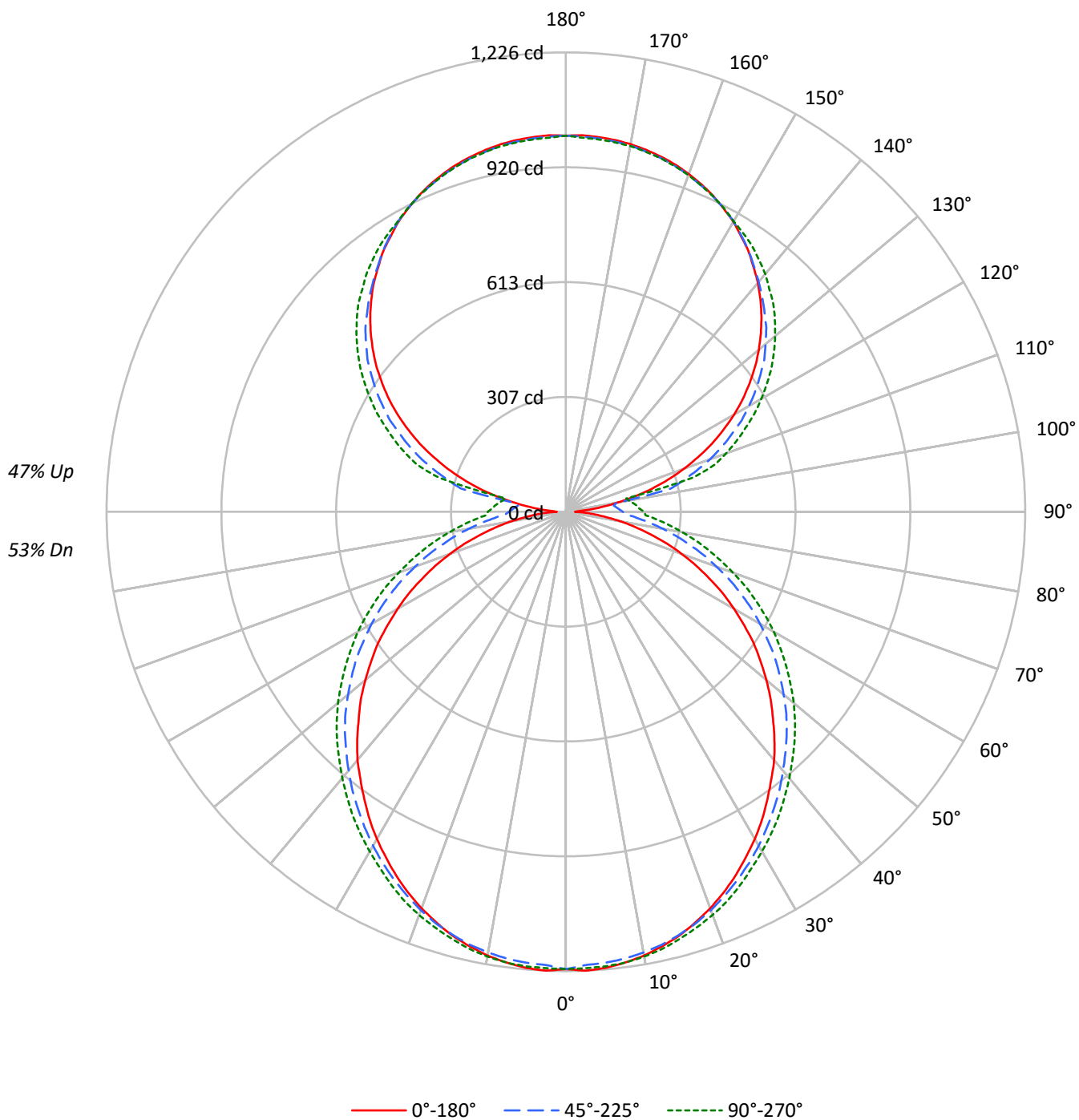
Lumens per Lamp: N/A
Luminaire Lumens: 7269.0 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59
1	97	93	88	84	90	86	82	79	73	70	68	61	59	57	50	49	48
2	88	80	74	68	81	74	69	64	63	59	55	53	50	47	44	41	39
3	80	70	62	56	74	65	58	53	55	50	46	47	43	39	38	35	33
4	73	62	53	47	67	57	50	44	49	43	39	41	37	33	34	31	28
5	67	55	46	40	62	51	43	38	44	38	33	37	32	29	30	27	24
6	62	49	41	35	57	46	38	33	39	33	29	33	29	25	28	24	21
7	57	44	36	30	53	41	34	29	36	30	25	30	25	22	25	21	19
8	53	40	32	27	49	37	30	25	32	27	22	28	23	19	23	19	17
9	49	37	29	24	45	34	27	22	30	24	20	25	21	17	21	18	15
10	46	34	26	21	42	31	25	20	27	22	18	23	19	16	20	16	14

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	1.6
10°-20°	331.3	4.6
20°-30°	501.0	6.9
30°-40°	606.1	8.3
40°-50°	640.7	8.8
50°-60°	603.0	8.3
60°-70°	500.4	6.9
70°-80°	351.1	4.8
80°-90°	200.0	2.8
90°-100°	151.2	2.1
100°-110°	306.7	4.2
110°-120°	477.6	6.6
120°-130°	564.9	7.8
130°-140°	583.3	8.0
140°-150°	534.9	7.4
150°-160°	429.1	5.9
160°-170°	276.7	3.8
170°-180°	95.4	1.3
0°-30°	947.9	13.0
0°-40°	1554.0	21.4
0°-60°	2797.7	38.5
0°-90°	3849.3	53.0
90°-120°	935.5	12.9
90°-150°	2618.5	36.0
90°-180°	3420.0	47.0
0°-180°	7269.0	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°	24	87	152	196	208	17
95°	59	79	135	177	190	65
105°	238	270	324	365	349	250
115°	430	445	488	519	529	424
125°	599	600	633	661	670	535
135°	738	738	750	774	783	569
145°	850	851	851	860	866	531
155°	930	931	929	932	929	429
165°	981	978	978	984	977	277
175°	1004	999	1000	1007	998	96
180°	1004	1004	1004	1004	1004	

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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°	24.2	87.0	151.8	195.9	208.4
92.5°	31.8	78.1	142.9	185.7	196.6
95°	59.1	78.7	135.4	176.8	189.9
97.5°	95.2	151.3	128.6	167.9	180.9
100°	138.1	187.2	136.9	161.1	171.3
102.5°	187.7	226.8	287.7	154.4	165.3
105°	238.3	270.1	324.4	365.4	349.3
107.5°	287.1	312.5	365.7	403.5	416.1
110°	335.2	356.7	409.0	441.9	455.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	382.0	402.9	449.5	478.7	492.7
115°	430.1	444.7	487.6	519.2	528.8
117.5°	474.4	485.6	528.9	556.8	567.7
120°	518.1	525.2	564.1	592.9	602.3
122.5°	560.1	561.6	600.0	628.1	636.1
125°	598.6	600.2	632.9	661.0	670.0
127.5°	636.9	636.2	667.3	691.1	700.0
130°	672.3	671.6	695.8	721.1	729.3
132.5°	706.0	706.1	725.5	749.6	757.0
135°	738.4	737.7	750.3	773.7	783.4
137.5°	768.5	767.2	776.3	798.3	804.5
140°	797.7	797.9	800.7	820.8	828.3
142.5°	822.7	825.7	825.1	841.6	847.1
145°	849.7	850.6	850.6	859.5	866.5
147.5°	870.8	873.9	873.1	875.3	881.4
150°	894.0	895.6	894.9	894.9	895.6
152.5°	912.2	914.4	912.9	914.4	913.7
155°	930.2	930.9	928.7	931.7	929.4
157.5°	945.9	945.9	942.9	946.7	942.9
160°	959.4	957.2	956.4	960.9	956.4
162.5°	971.5	968.5	967.7	972.2	967.0
165°	981.2	977.5	977.5	983.5	976.7
167.5°	989.5	985.7	985.0	991.7	984.2
170°	996.2	991.7	992.5	998.5	991.0
172.5°	1000.7	996.2	997.0	1003.0	994.7
175°	1003.7	999.2	1000.0	1006.7	997.7
177.5°	1006.0	1000.7	1002.2	1008.2	999.2
180°	1003.7	1003.7	1003.7	1003.7	1003.7

(END OF REPORT)