

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: P1033516

Luminaire Tested: S124DIW-B350D770UB35-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033516
REPORT IS A COMBINATION OF REPORTS P997588 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B350D770UB35-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

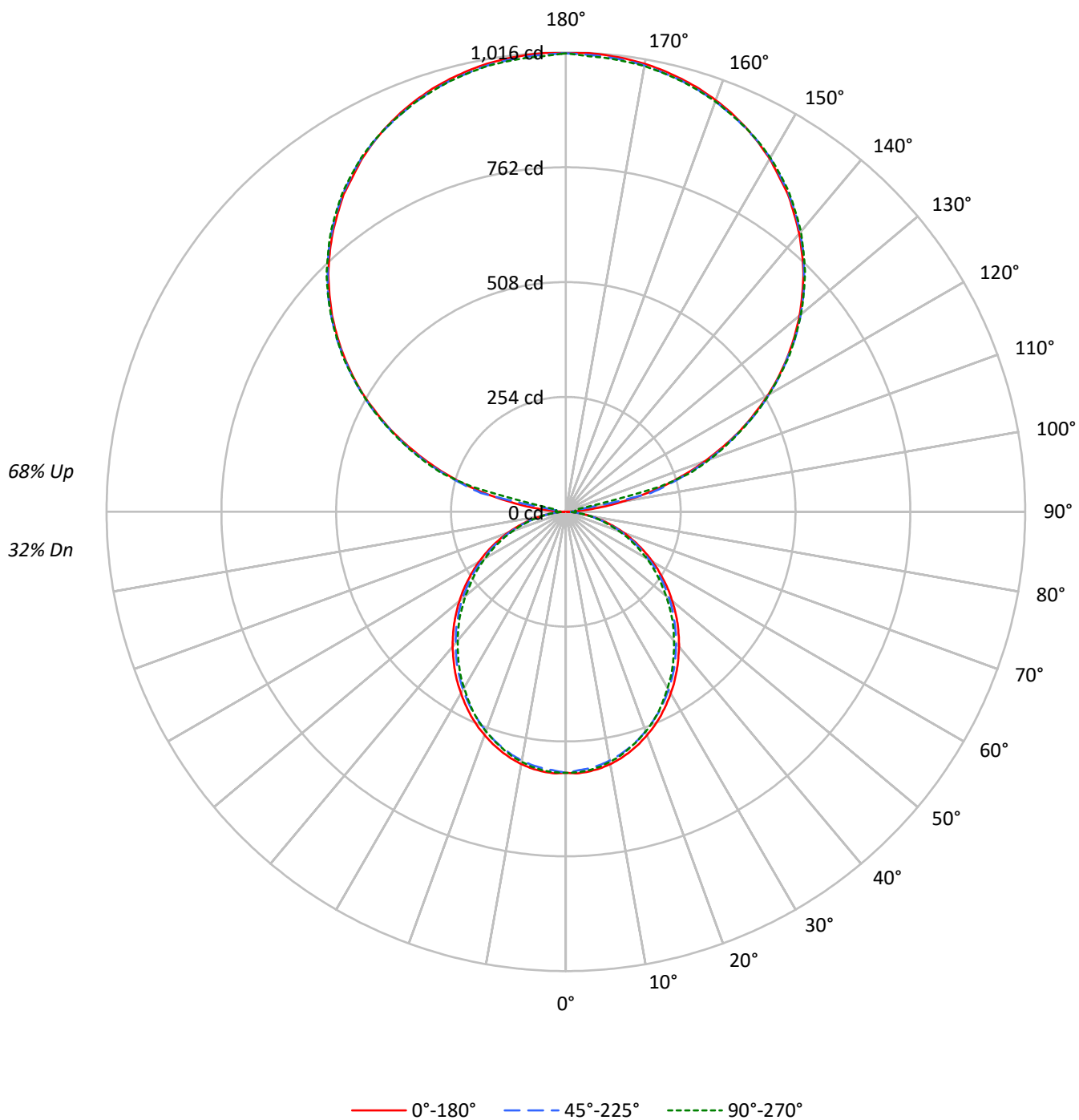
Lumens per Lamp: N/A
Luminaire Lumens: 4621.0 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 36.2
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	103	103	103	103	93	93	93	93	73	73	73	56	56	56	40	40	40
1	94	90	86	82	84	81	78	75	64	62	60	49	48	46	35	34	33
2	85	78	72	67	77	71	65	61	56	53	50	43	41	39	31	29	28
3	78	69	62	56	70	62	56	51	50	45	42	38	35	33	27	25	24
4	71	61	53	47	64	55	48	43	44	39	35	34	31	28	24	22	21
5	65	54	46	40	58	49	42	37	39	34	30	30	27	24	22	20	18
6	60	48	40	35	54	44	37	32	35	30	26	27	24	21	20	18	16
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	18	16	14
8	51	39	32	27	46	36	29	25	29	24	20	23	19	16	17	14	12
9	48	36	29	24	43	33	26	22	26	22	18	21	17	15	15	13	11
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4708	4708	4708
5°	4712	4573	4579
10°	4673	4446	4415
15°	4606	4295	4230
20°	4520	4132	4039
25°	4424	3959	3834
30°	4307	3772	3608
35°	4187	3581	3389
40°	4062	3376	3157
45°	3930	3171	2940
50°	3784	2971	2699
55°	3627	2737	2461
60°	3464	2482	2212
65°	3278	2218	1932
70°	3065	1900	1631
75°	2746	1532	1307
80°	2340	1107	919
85°	1819	618	495

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3930 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	1.2
10°-20°	153.3	3.3
20°-30°	225.7	4.9
30°-40°	262.3	5.7
40°-50°	262.3	5.7
50°-60°	229.4	5.0
60°-70°	170.3	3.7
70°-80°	96.6	2.1
80°-90°	29.8	0.6
90°-100°	33.7	0.7
100°-110°	221.6	4.8
110°-120°	423.2	9.2
120°-130°	537.2	11.6
130°-140°	574.7	12.4
140°-150°	537.4	11.6
150°-160°	433.4	9.4
160°-170°	279.5	6.0
170°-180°	96.3	2.1
0°-30°	433.4	9.4
0°-40°	695.7	15.1
0°-60°	1187.4	25.7
0°-90°	1484.1	32.1
90°-120°	678.5	14.7
90°-150°	2327.8	50.4
90°-180°	3137.0	67.9
0°-180°	4621.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	577	577	577	577	577	
5°	577	575	570	575	574	55
15°	549	547	540	543	542	155
25°	497	494	488	488	486	229
35°	428	425	418	415	413	268
45°	349	346	339	334	332	269
55°	264	263	256	251	248	237
65°	179	177	172	168	165	177
75°	95	93	91	89	88	101
85°	25	25	24	24	24	27
90°	2	11	17	21	23	4
95°	42	16	17	21	22	51
105°	228	233	237	243	216	239
115°	426	428	428	429	429	419
125°	599	602	600	603	604	535
135°	743	742	745	747	748	573
145°	857	859	859	860	861	535
155°	939	940	938	941	939	433
165°	991	987	987	993	986	280
175°	1014	1009	1010	1017	1008	97
180°	1014	1014	1014	1014	1014	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	577.4	577.4	577.4	577.4	577.4
2.5°	579.2	577.9	572.8	577.4	576.9
5°	576.9	575.1	570.0	575.1	574.2
7.5°	572.8	570.9	565.4	569.5	569.1
10°	566.8	564.9	558.9	562.6	561.7
12.5°	558.9	557.0	550.6	554.7	553.3
15°	549.2	547.3	540.4	543.2	541.8
17.5°	538.1	535.8	529.3	531.1	530.2
20°	525.6	523.3	516.3	517.7	516.8
22.5°	512.2	508.9	502.0	504.8	502.9
25°	497.4	494.1	487.6	488.1	486.3
27.5°	480.7	477.5	471.4	470.5	468.2
30°	464.0	460.3	454.3	452.5	450.2
32.5°	446.5	443.2	436.7	434.4	432.1
35°	428.0	424.7	418.2	415.0	412.7
37.5°	408.5	405.8	398.8	395.6	392.3
40°	389.6	385.9	378.9	374.3	372.0
42.5°	369.2	367.3	359.5	353.9	352.5
45°	349.3	346.1	338.7	333.6	332.2
47.5°	328.5	326.2	319.2	313.7	310.0
50°	307.2	305.4	298.9	292.4	289.6
52.5°	286.4	284.1	277.1	271.6	267.9
55°	264.2	262.8	256.3	250.8	248.0
57.5°	243.4	242.0	235.5	229.9	227.2
60°	221.6	219.3	213.3	209.1	206.8
62.5°	200.3	198.5	192.0	188.3	186.0
65°	179.0	176.7	172.1	167.5	165.2
67.5°	157.3	155.5	150.8	146.2	145.7
70°	137.4	134.2	130.5	126.8	125.4
72.5°	116.1	112.9	110.1	107.3	105.9
75°	95.3	93.0	90.7	88.8	88.4
77.5°	75.0	74.0	71.7	71.2	69.9
80°	56.9	55.5	54.6	53.7	53.2
82.5°	39.3	38.9	38.9	38.4	37.9
85°	25.0	25.0	24.1	24.1	23.6
87.5°	12.0	11.6	11.1	11.1	11.1
90°	2.3	10.6	16.7	21.2	22.7
92.5°	11.4	9.9	15.9	20.5	20.5
95°	41.7	15.9	16.7	21.2	22.0
97.5°	79.6	96.3	16.7	20.5	21.2
100°	124.3	138.0	33.4	20.5	21.2
102.5°	174.4	183.5	192.6	22.0	22.0
105°	228.2	232.8	236.6	243.4	216.1
107.5°	277.5	279.8	285.1	288.9	291.9
110°	327.6	329.8	334.4	335.9	338.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	376.1	380.6	382.1	381.4	384.4
115°	426.1	428.4	427.6	429.2	429.2
117.5°	470.9	473.9	476.2	475.4	475.4
120°	516.4	519.4	518.6	520.1	518.6
122.5°	558.8	560.3	561.8	562.6	561.1
125°	599.0	602.0	600.5	602.8	603.6
127.5°	637.7	638.4	642.2	641.5	640.7
130°	674.8	675.6	677.9	678.6	678.6
132.5°	708.9	710.5	713.5	714.3	713.5
135°	743.1	742.3	745.3	746.9	748.4
137.5°	773.4	773.4	777.2	778.7	777.9
140°	803.0	804.5	806.0	808.3	809.0
142.5°	829.5	832.5	833.3	834.8	834.8
145°	856.8	859.1	859.1	859.8	861.3
147.5°	878.0	882.6	881.8	882.6	883.3
150°	901.5	904.6	903.8	903.8	904.6
152.5°	921.2	923.5	922.0	923.5	922.8
155°	939.4	940.2	937.9	941.0	938.7
157.5°	955.4	955.4	952.3	956.1	952.3
160°	969.0	966.7	966.0	970.5	966.0
162.5°	981.1	978.1	977.4	981.9	976.6
165°	991.0	987.2	987.2	993.3	986.5
167.5°	999.3	995.6	994.8	1001.6	994.0
170°	1006.2	1001.6	1002.4	1008.4	1000.9
172.5°	1010.7	1006.2	1006.9	1013.0	1004.7
175°	1013.8	1009.2	1010.0	1016.8	1007.7
177.5°	1016.0	1010.7	1012.2	1018.3	1009.2
180°	1013.8	1013.8	1013.8	1013.8	1013.8

(END OF REPORT)