

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: P1033780

Luminaire Tested: S124DIW-B795D470UB35-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033780
REPORT IS A COMBINATION OF REPORTS P998182 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B795D470UB35-4F0-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

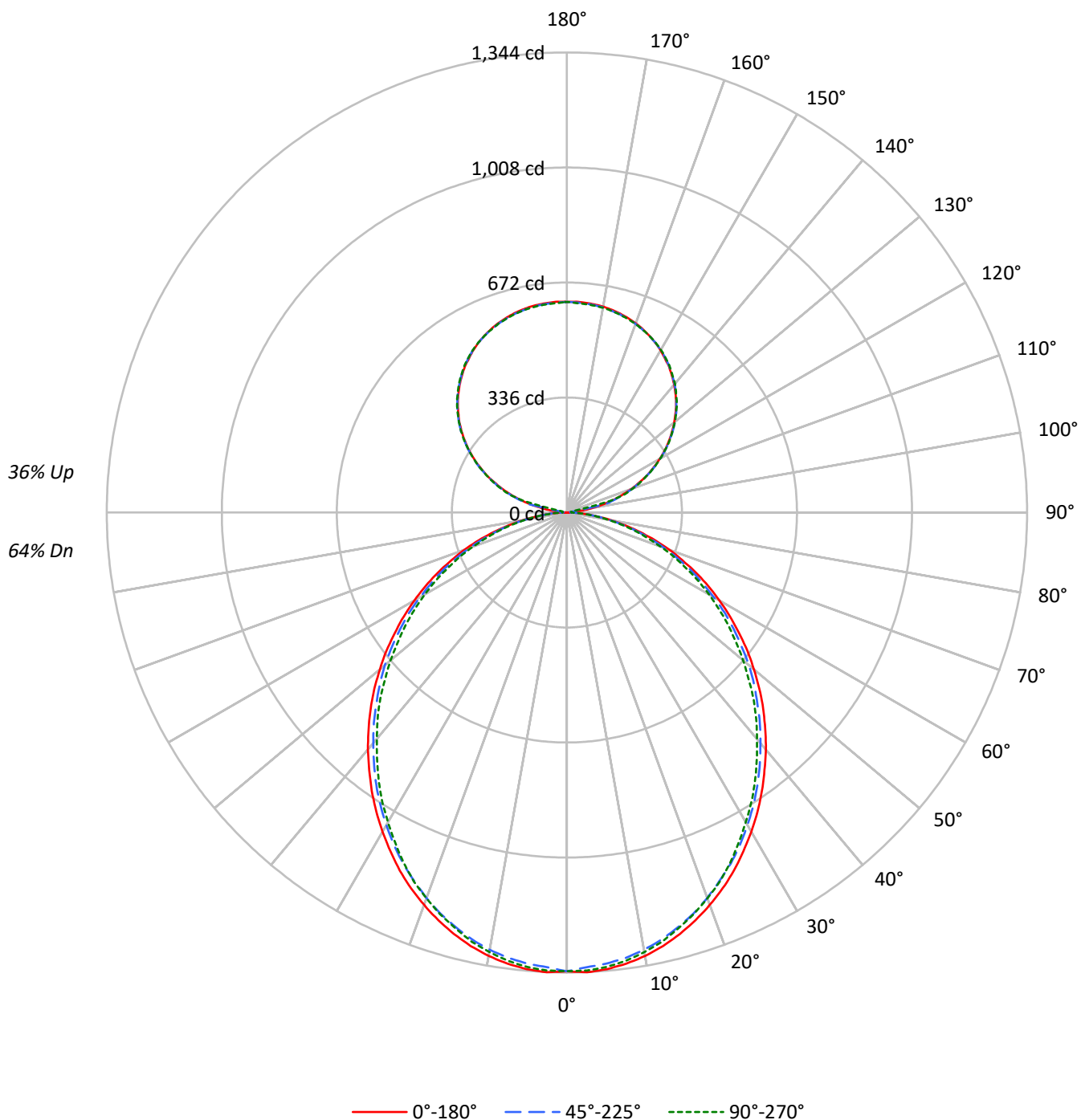
Lumens per Lamp: N/A
Luminaire Lumens: 5345.0 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 49.1
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	30	10
RCR																	
0	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69
1	101	97	93	89	95	91	87	84	80	77	75	70	68	67	61	60	59
2	92	84	78	73	86	79	74	69	70	66	62	62	58	56	54	51	49
3	84	74	67	61	78	70	63	58	62	57	52	55	50	47	48	45	42
4	77	66	58	51	72	62	55	49	55	49	45	49	44	40	43	39	36
5	71	59	50	44	66	55	48	42	49	43	39	44	39	35	38	35	32
6	65	53	44	38	61	50	42	37	45	38	34	40	35	31	35	31	28
7	60	48	39	34	56	45	38	32	40	34	30	36	31	27	32	28	25
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	29	25	22
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	27	23	20
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10929	10929	10929
5°	10938	10615	10627
10°	10845	10320	10247
15°	10690	9969	9820
20°	10491	9591	9376
25°	10268	9190	8898
30°	9998	8757	8374
35°	9719	8314	7867
40°	9427	7837	7328
45°	9122	7359	6824
50°	8785	6895	6266
55°	8417	6353	5711
60°	8041	5760	5134
65°	7611	5148	4484
70°	7117	4409	3786
75°	6374	3555	3032
80°	5433	2570	2133
85°	4221	1430	1149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9122 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	2.4
10°-20°	355.9	6.7
20°-30°	523.8	9.8
30°-40°	608.9	11.4
40°-50°	608.8	11.4
50°-60°	532.5	10.0
60°-70°	395.3	7.4
70°-80°	224.3	4.2
80°-90°	65.5	1.2
90°-100°	20.4	0.4
100°-110°	134.5	2.5
110°-120°	256.8	4.8
120°-130°	326.0	6.1
130°-140°	348.8	6.5
140°-150°	326.1	6.1
150°-160°	263.0	4.9
160°-170°	169.6	3.2
170°-180°	58.5	1.1
0°-30°	1006.0	18.8
0°-40°	1614.9	30.2
0°-60°	2756.1	51.6
0°-90°	3441.3	64.4
90°-120°	411.7	7.7
90°-150°	1412.7	26.4
90°-180°	1904.0	35.6
0°-180°	5345.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1340	1340	1340	1340	1340	
5°	1339	1335	1323	1335	1333	127
15°	1275	1270	1254	1261	1258	359
25°	1154	1147	1132	1133	1129	531
35°	993	986	971	963	958	621
45°	811	803	786	774	771	625
55°	613	610	595	582	576	549
65°	416	410	400	389	383	411
75°	221	216	210	206	205	235
85°	58	58	56	56	55	62
90°	1	6	10	13	14	5
95°	25	10	10	13	13	31
105°	138	141	144	148	131	145
115°	259	260	260	260	260	255
125°	364	365	364	366	366	325
135°	451	450	452	453	454	347
145°	520	521	521	522	523	325
155°	570	571	569	571	570	263
165°	601	599	599	603	599	170
175°	615	612	613	617	612	59
180°	615	615	615	615	615	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1340.2	1340.2	1340.2	1340.2	1340.2
2.5°	1344.5	1341.3	1329.5	1340.2	1339.2
5°	1339.2	1334.9	1323.1	1334.9	1332.7
7.5°	1329.5	1325.2	1312.3	1322.0	1320.9
10°	1315.5	1311.2	1297.3	1305.9	1303.7
12.5°	1297.3	1293.0	1278.0	1287.6	1284.4
15°	1274.7	1270.4	1254.3	1260.8	1257.6
17.5°	1249.0	1243.6	1228.6	1232.9	1230.7
20°	1220.0	1214.6	1198.5	1201.7	1199.6
22.5°	1188.8	1181.3	1165.2	1171.6	1167.3
25°	1154.5	1146.9	1131.9	1133.0	1128.7
27.5°	1115.8	1108.3	1094.3	1092.2	1086.8
30°	1077.1	1068.5	1054.6	1050.3	1044.9
32.5°	1036.3	1028.8	1013.8	1008.4	1003.0
35°	993.4	985.9	970.8	963.3	957.9
37.5°	948.3	941.8	925.7	918.2	910.7
40°	904.2	895.6	879.5	868.8	863.4
42.5°	857.0	852.7	834.4	821.5	818.3
45°	810.8	803.3	786.1	774.3	771.1
47.5°	762.5	757.1	741.0	728.1	719.5
50°	713.1	708.8	693.7	678.7	672.3
52.5°	664.8	659.4	643.3	630.4	621.8
55°	613.2	610.0	594.9	582.1	575.6
57.5°	564.9	561.7	546.6	533.7	527.3
60°	514.4	509.0	495.1	485.4	480.0
62.5°	465.0	460.7	445.7	437.1	431.7
65°	415.6	410.2	399.5	388.8	383.4
67.5°	365.1	360.8	350.1	339.4	338.3
70°	319.0	311.4	302.8	294.3	291.0
72.5°	269.6	262.0	255.6	249.1	245.9
75°	221.2	215.9	210.5	206.2	205.1
77.5°	174.0	171.8	166.5	165.4	162.2
80°	132.1	128.9	126.7	124.6	123.5
82.5°	91.3	90.2	90.2	89.1	88.1
85°	58.0	58.0	55.8	55.8	54.8
87.5°	27.9	26.8	25.8	25.8	25.8
90°	1.4	6.4	10.1	12.9	13.8
92.5°	6.9	6.0	9.7	12.4	12.4
95°	25.3	9.7	10.1	12.9	13.3
97.5°	48.3	58.4	10.1	12.4	12.9
100°	75.5	83.7	20.2	12.4	12.9
102.5°	105.8	111.4	116.9	13.3	13.3
105°	138.5	141.3	143.6	147.7	131.1
107.5°	168.4	169.8	173.0	175.3	177.2
110°	198.8	200.2	202.9	203.8	205.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	228.2	231.0	231.9	231.5	233.3
115°	258.6	260.0	259.5	260.4	260.4
117.5°	285.8	287.6	289.0	288.5	288.5
120°	313.4	315.2	314.7	315.7	314.7
122.5°	339.1	340.1	341.0	341.4	340.5
125°	363.5	365.4	364.4	365.8	366.3
127.5°	387.0	387.5	389.8	389.3	388.8
130°	409.5	410.0	411.4	411.8	411.8
132.5°	430.2	431.2	433.0	433.5	433.0
135°	451.0	450.5	452.3	453.3	454.2
137.5°	469.4	469.4	471.7	472.6	472.1
140°	487.3	488.2	489.1	490.5	491.0
142.5°	503.4	505.3	505.7	506.6	506.6
145°	520.0	521.4	521.4	521.8	522.7
147.5°	532.9	535.6	535.2	535.6	536.1
150°	547.1	549.0	548.5	548.5	549.0
152.5°	559.1	560.5	559.5	560.5	560.0
155°	570.1	570.6	569.2	571.1	569.7
157.5°	579.8	579.8	578.0	580.3	578.0
160°	588.1	586.7	586.2	589.0	586.2
162.5°	595.4	593.6	593.1	595.9	592.7
165°	601.4	599.1	599.1	602.8	598.7
167.5°	606.5	604.2	603.7	607.9	603.3
170°	610.6	607.9	608.3	612.0	607.4
172.5°	613.4	610.6	611.1	614.8	609.7
175°	615.2	612.5	612.9	617.1	611.5
177.5°	616.6	613.4	614.3	618.0	612.5
180°	615.2	615.2	615.2	615.2	615.2

(END OF REPORT)