

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: P1033784

Luminaire Tested: S124DIW-B795D470UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033784
REPORT IS A COMBINATION OF REPORTS P998188 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B795D470UB40-4F0-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

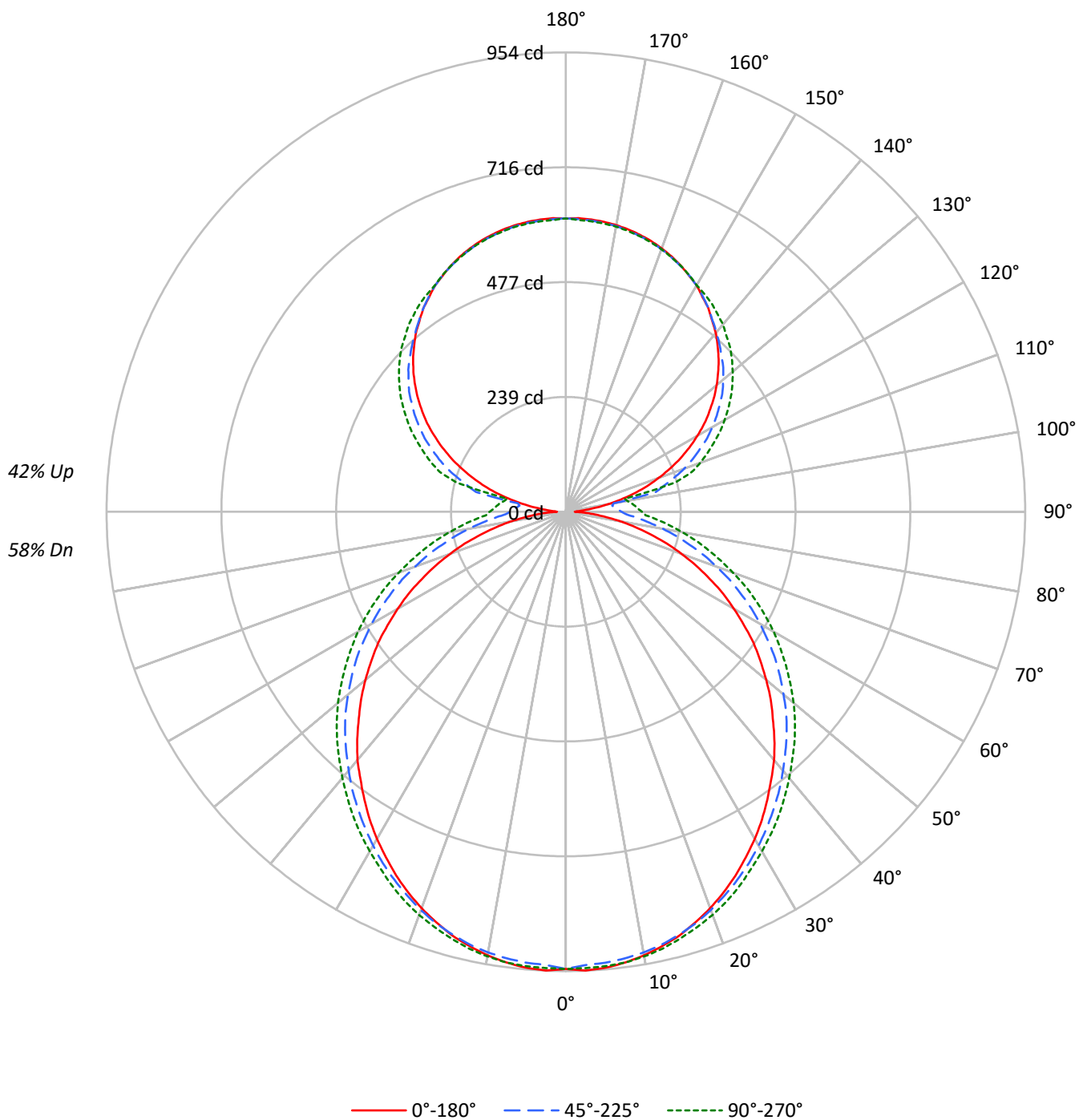
Lumens per Lamp: N/A
Luminaire Lumens: 5123.0 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 49.1
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	102	102	102	102	88	88	88	75	75	75	64	64	64
1	99	94	89	85	92	87	83	80	75	73	70	65	62	60	55	53	52
2	89	81	74	69	83	76	70	65	65	61	57	56	53	50	47	45	43
3	81	71	63	57	75	66	59	53	57	52	47	49	45	41	42	38	36
4	74	62	54	48	69	58	51	45	51	45	40	44	39	35	37	33	30
5	68	56	47	41	63	52	44	38	45	39	34	39	34	30	33	29	26
6	62	50	41	35	58	47	39	33	41	34	30	35	30	26	30	26	23
7	58	45	36	31	54	42	34	29	37	31	26	32	27	23	27	23	20
8	54	41	33	27	50	38	31	26	34	27	23	29	24	21	25	21	18
9	50	37	29	24	46	35	28	23	31	25	21	27	22	18	23	19	16
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	21	18	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7742	7742	7742
5°	7763	7541	7554
10°	7713	7392	7371
15°	7641	7225	7164
20°	7534	7044	6964
25°	7413	6845	6747
30°	7283	6648	6527
35°	7136	6446	6330
40°	7017	6253	6127
45°	6842	6071	5947
50°	6693	5865	5757
55°	6538	5665	5539
60°	6300	5418	5333
65°	6036	5152	5085
70°	5716	4846	4799
75°	5271	4507	4527
80°	4767	4162	4242
85°	4097	3813	4012

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6842 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.0	1.8
10°-20°	257.7	5.0
20°-30°	389.7	7.6
30°-40°	471.5	9.2
40°-50°	498.4	9.7
50°-60°	469.1	9.2
60°-70°	389.3	7.6
70°-80°	273.2	5.3
80°-90°	155.3	3.0
90°-100°	111.9	2.2
100°-110°	201.0	3.9
110°-120°	299.8	5.9
120°-130°	348.4	6.8
130°-140°	356.4	7.0
140°-150°	325.1	6.3
150°-160°	260.4	5.1
160°-170°	167.9	3.3
170°-180°	57.9	1.1
0°-30°	737.4	14.4
0°-40°	1208.9	23.6
0°-60°	2176.5	42.5
0°-90°	2994.1	58.4
90°-120°	612.8	12.0
90°-150°	1642.7	32.1
90°-180°	2129.0	41.6
0°-180°	5123.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	950	947	940	948	947	90
15°	911	912	909	919	918	257
25°	834	840	843	855	856	384
35°	729	742	753	768	771	457
45°	608	628	648	667	672	470
55°	476	499	530	552	558	424
65°	330	364	400	426	435	327
75°	183	222	267	297	306	194
85°	56	101	149	181	191	59
90°	18	66	115	149	158	13
95°	39	58	102	134	144	42
105°	147	171	212	243	235	154
115°	262	273	307	331	339	259
125°	364	365	391	412	419	326
135°	449	448	457	475	483	346
145°	516	516	516	523	528	322
155°	564	565	564	565	564	260
165°	595	593	593	597	593	168
175°	609	606	607	611	605	58
180°	609	609	609	609	609	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	949.4	949.4	949.4	949.4	949.4
2.5°	953.7	950.5	942.0	949.4	948.4
5°	950.5	947.3	939.9	948.4	947.3
7.5°	944.1	942.0	935.6	945.2	944.1
10°	935.6	934.5	929.2	938.8	937.7
12.5°	923.9	923.9	920.7	929.2	929.2
15°	911.2	912.2	909.0	918.6	917.5
17.5°	894.1	897.3	896.3	905.8	904.8
20°	876.1	879.3	880.3	891.0	891.0
22.5°	855.9	860.1	862.2	872.9	875.0
25°	833.5	839.9	843.1	854.8	855.9
27.5°	809.1	818.7	822.9	833.5	834.6
30°	784.6	793.1	800.6	812.3	814.4
32.5°	758.1	768.7	777.2	791.0	793.1
35°	729.4	742.1	752.7	767.6	770.8
37.5°	700.6	715.5	728.3	743.2	746.4
40°	673.0	686.8	701.7	717.7	721.9
42.5°	641.1	657.1	675.1	693.2	696.4
45°	608.1	628.3	648.5	666.6	671.9
47.5°	577.3	597.5	620.9	639.0	645.4
50°	543.3	566.7	590.1	611.3	617.7
52.5°	509.3	532.7	560.3	581.6	587.9
55°	476.3	498.6	530.5	551.8	558.2
57.5°	439.1	466.7	497.6	523.1	528.4
60°	403.0	430.6	465.7	490.1	498.6
62.5°	367.9	398.7	433.8	458.2	466.7
65°	329.6	363.6	399.8	426.3	434.8
67.5°	293.4	329.6	367.9	394.4	403.0
70°	256.2	292.4	332.8	361.5	368.9
72.5°	220.1	257.3	300.9	328.5	337.0
75°	182.9	222.2	266.9	296.6	306.2
77.5°	147.8	189.2	236.0	265.8	276.4
80°	115.9	158.4	205.2	237.1	245.6
82.5°	84.0	128.6	175.4	208.4	218.0
85°	56.3	101.0	148.8	180.7	191.4
87.5°	35.1	78.7	125.5	156.3	165.9
90°	18.4	65.9	115.3	148.9	158.3
92.5°	22.7	59.1	108.5	140.9	149.5
95°	38.9	58.5	102.5	134.0	144.0
97.5°	60.6	101.5	97.2	127.1	137.2
100°	86.4	122.2	100.8	121.8	129.8
102.5°	116.5	145.3	191.2	116.3	124.8
105°	146.7	170.7	212.3	243.0	235.1
107.5°	176.3	195.7	236.2	265.0	274.3
110°	205.3	221.6	261.5	286.9	296.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	233.4	248.9	284.9	307.8	318.2
115°	262.4	273.3	306.9	331.3	338.7
117.5°	289.3	297.5	330.8	352.6	361.1
120°	315.5	320.6	350.9	373.1	380.7
122.5°	341.1	342.0	371.6	393.3	399.8
125°	364.2	364.9	390.6	412.2	418.9
127.5°	387.4	386.8	410.4	429.0	436.0
130°	408.7	408.0	426.4	446.0	452.4
132.5°	429.2	429.0	443.6	462.1	468.0
135°	448.6	448.1	457.4	475.3	482.6
137.5°	466.8	465.8	472.3	489.2	494.0
140°	484.5	484.5	486.4	501.5	507.4
142.5°	499.5	501.3	500.7	513.3	517.5
145°	515.9	516.2	516.2	523.0	528.1
147.5°	528.6	530.3	529.8	531.4	536.0
150°	542.8	543.5	543.0	543.0	543.5
152.5°	553.5	554.9	554.0	554.9	554.4
155°	564.4	564.9	563.5	565.4	564.0
157.5°	574.0	574.0	572.2	574.5	572.2
160°	582.2	580.8	580.4	583.1	580.4
162.5°	589.5	587.7	587.2	590.0	586.8
165°	595.4	593.1	593.1	596.8	592.7
167.5°	600.4	598.2	597.7	601.8	597.2
170°	604.5	601.8	602.3	605.9	601.3
172.5°	607.3	604.5	605.0	608.6	603.6
175°	609.1	606.4	606.8	610.9	605.4
177.5°	610.5	607.3	608.2	611.8	606.4
180°	609.1	609.1	609.1	609.1	609.1

(END OF REPORT)