

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: P1033785

Luminaire Tested: S124DIW-B795D470UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033785
REPORT IS A COMBINATION OF REPORTS P998189 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-D1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

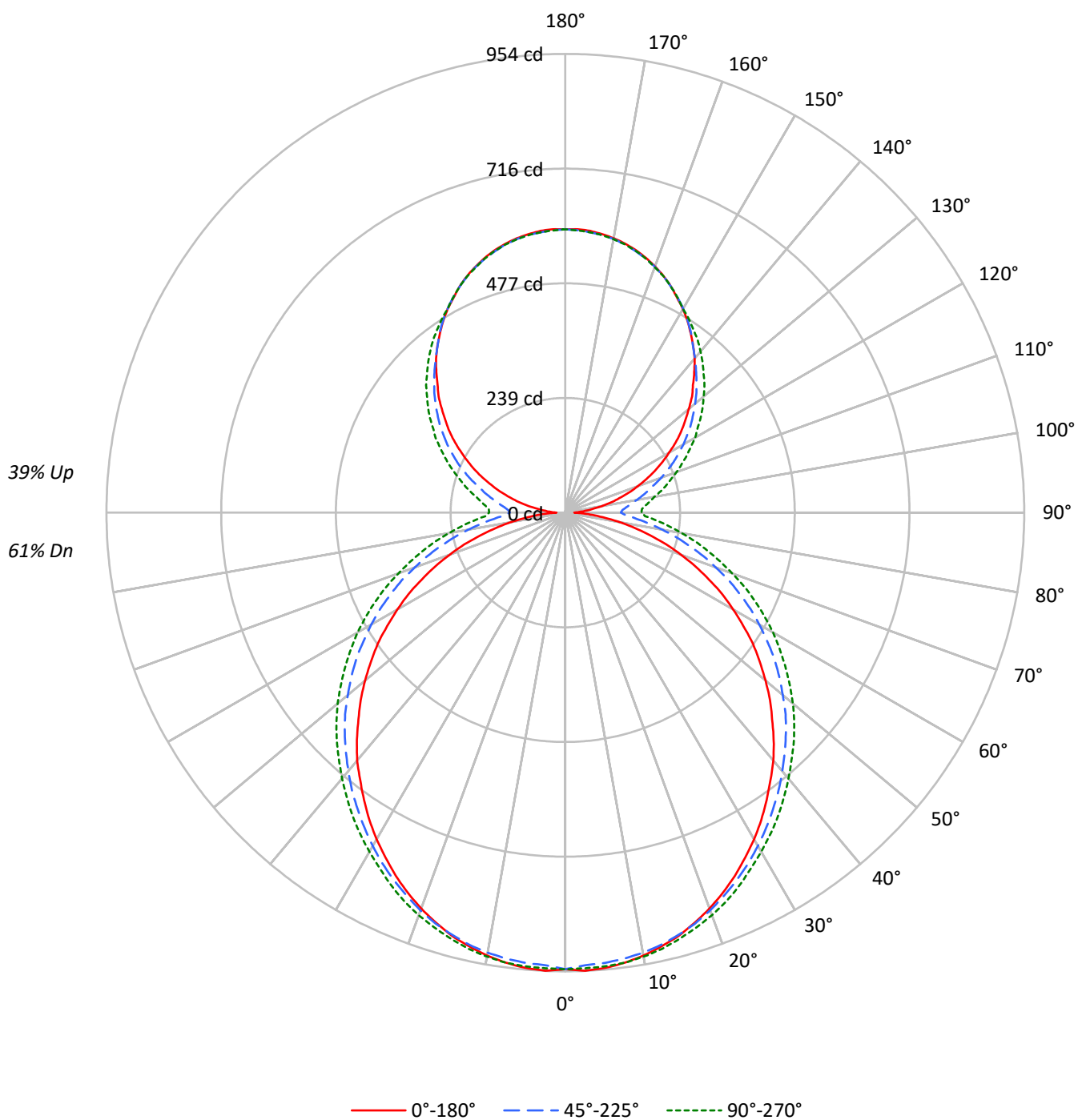
Lumens per Lamp: N/A
Luminaire Lumens: 4873.0 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	61
1	99	94	90	86	92	88	84	81	77	74	71	67	64	62	57	55	54	49
2	90	82	75	69	84	76	70	65	67	62	58	58	54	51	49	47	44	40
3	82	71	63	57	76	67	60	54	58	53	48	51	46	43	43	40	37	33
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	38	35	32	28
5	68	56	47	41	63	52	45	39	46	40	35	40	35	31	34	31	27	24
6	63	50	41	35	58	47	39	34	41	35	30	36	31	27	31	27	24	21
7	58	45	37	31	54	42	35	29	37	31	27	33	28	24	28	24	21	19
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19	17
9	50	37	30	24	47	35	28	23	31	25	21	28	23	19	24	20	17	15
10	47	34	27	22	44	32	25	21	29	23	19	25	21	17	22	18	15	13

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	5.3
20°-30°	389.7	8.0
30°-40°	471.5	9.7
40°-50°	498.4	10.2
50°-60°	469.1	9.6
60°-70°	389.3	8.0
70°-80°	273.2	5.6
80°-90°	155.3	3.2
90°-100°	130.1	2.7
100°-110°	182.9	3.8
110°-120°	241.0	4.9
120°-130°	283.4	5.8
130°-140°	300.6	6.2
140°-150°	286.7	5.9
150°-160°	239.3	4.9
160°-170°	159.2	3.3
170°-180°	55.7	1.1
0°-30°	737.4	15.1
0°-40°	1208.9	24.8
0°-60°	2176.5	44.7
0°-90°	2994.1	61.4
90°-120°	554.0	11.4
90°-150°	1424.6	29.2
90°-180°	1879.0	38.6
0°-180°	4873.0	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	14
95°	41	80	127	157	167	41
105°	116	137	179	207	216	123
115°	205	215	248	271	278	203
125°	294	292	319	338	343	262
135°	375	378	386	402	407	291
145°	454	455	456	462	464	285
155°	520	520	519	521	519	239
165°	566	564	563	566	564	159
175°	588	586	586	589	586	56
180°	589	589	589	589	589	

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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°	27.7	71.0	118.9	150.0	159.1
95°	41.1	80.3	127.1	157.2	166.8
97.5°	56.5	91.0	138.2	167.7	177.3
100°	75.5	104.9	150.5	180.1	187.6
102.5°	96.5	120.3	164.4	193.3	202.3
105°	115.8	137.4	178.6	206.6	216.5
107.5°	138.1	156.6	194.3	222.6	229.7
110°	159.8	175.6	212.3	235.9	245.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	182.4	195.2	229.4	252.8	261.3
115°	205.1	214.6	247.8	270.7	277.6
117.5°	227.4	233.8	265.2	286.2	293.3
120°	248.6	253.6	283.1	302.1	311.5
122.5°	271.9	272.3	300.6	320.5	325.6
125°	293.6	292.5	318.7	338.0	343.4
127.5°	314.2	314.4	334.8	353.0	359.9
130°	334.9	335.2	352.2	370.5	375.1
132.5°	357.3	357.1	369.4	386.6	392.4
135°	375.3	378.0	385.5	401.6	406.6
137.5°	396.7	397.1	402.2	416.8	422.6
140°	418.1	418.0	419.0	432.4	437.3
142.5°	436.7	437.6	436.1	447.8	452.0
145°	454.5	455.2	455.7	461.6	464.4
147.5°	472.7	473.9	473.4	474.1	477.8
150°	489.1	489.8	489.8	489.8	489.4
152.5°	503.5	504.4	504.9	506.2	504.9
155°	519.5	519.5	519.0	520.8	519.0
157.5°	533.1	532.2	532.2	533.6	532.2
160°	545.0	544.5	544.1	545.4	543.2
162.5°	555.9	554.5	554.1	556.8	554.5
165°	565.5	564.1	563.2	565.9	564.1
167.5°	573.2	571.4	571.4	574.1	571.4
170°	579.6	577.3	577.8	580.5	577.3
172.5°	584.2	582.3	582.3	585.5	582.3
175°	588.3	586.0	585.5	588.7	585.5
177.5°	590.1	587.8	587.8	591.0	587.4
180°	589.2	589.2	589.2	589.2	589.2

(END OF REPORT)