

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P998553

Luminaire Tested: SA2XXDIP-B485D530UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998553
REPORT IS A COMBINATION OF REPORTS P984296 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D530UB50-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

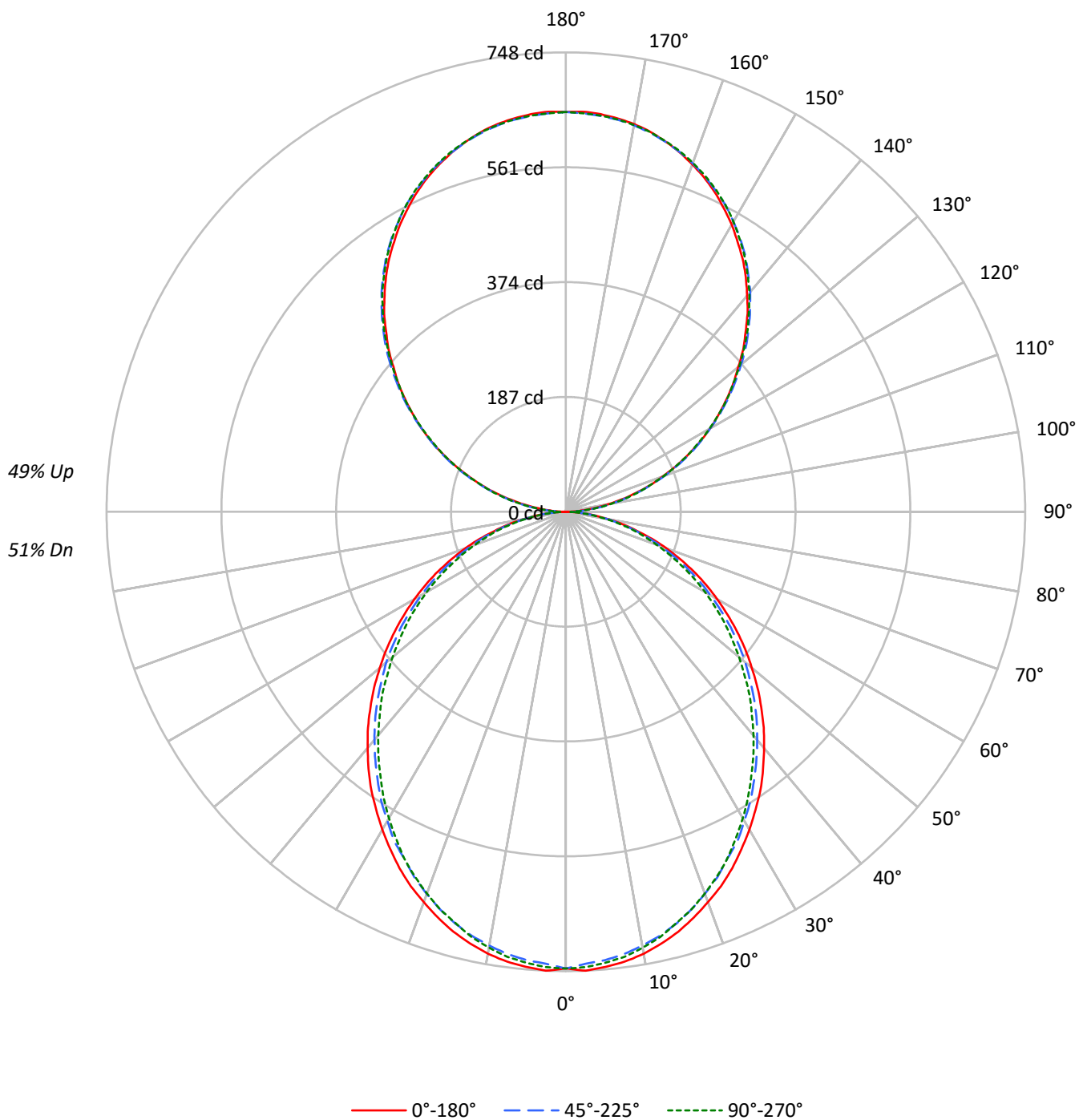
Lumens per Lamp: N/A
Luminaire Lumens: 3714.0 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 39.4
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

TEST NUMBER: P998553

CATALOG NUMBER: SA2XXDIP-B485D530UB50-4F0-XX-W2A-F1

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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57
1	98	94	90	86	90	87	83	80	74	71	69	62	60	58	50	49	48
2	89	82	76	70	82	76	70	66	64	60	57	54	51	49	44	42	41
3	81	72	65	59	75	67	60	55	57	52	48	48	44	41	39	37	35
4	74	64	56	50	69	59	52	47	51	45	41	43	39	35	35	32	30
5	68	57	49	43	63	53	46	40	45	40	35	38	34	31	32	28	26
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	25	23
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	21	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11772	11772	11772
5°	11791	11220	11141
10°	11695	10709	10497
15°	11524	10194	9819
20°	11291	9633	9177
25°	11061	9048	8536
30°	10771	8498	7863
35°	10497	7919	7203
40°	10160	7345	6579
45°	9824	6777	5966
50°	9455	6199	5332
55°	9070	5582	4729
60°	8636	4912	4104
65°	8159	4233	3447
70°	7557	3489	2783
75°	6718	2689	2149
80°	5708	1829	1383
85°	4139	851	588

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9824 cd/sqm

TEST NUMBER: P998553

CATALOG NUMBER: SA2XXDIP-B485D530UB50-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	1.9
10°-20°	196.9	5.3
20°-30°	289.4	7.8
30°-40°	336.1	9.1
40°-50°	335.7	9.0
50°-60°	292.7	7.9
60°-70°	216.4	5.8
70°-80°	122.4	3.3
80°-90°	34.1	0.9
90°-100°	40.3	1.1
100°-110°	128.0	3.4
110°-120°	219.1	5.9
120°-130°	288.1	7.8
130°-140°	323.4	8.7
140°-150°	317.1	8.5
150°-160°	266.0	7.2
160°-170°	176.4	4.8
170°-180°	61.7	1.7
0°-30°	556.3	15.0
0°-40°	892.4	24.0
0°-60°	1520.9	40.9
0°-90°	1893.8	51.0
90°-120°	387.4	10.4
90°-150°	1316.0	35.4
90°-180°	1820.0	49.0
0°-180°	3714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	744	741	733	739	737	71
15°	708	704	694	697	694	199
25°	641	635	623	624	623	295
35°	553	546	534	530	526	345
45°	450	445	434	426	423	347
55°	340	336	328	319	315	304
65°	230	225	218	212	208	227
75°	120	119	115	111	112	128
85°	29	29	28	26	25	33
90°	0	7	19	18	19	4
95°	29	34	35	35	34	32
105°	118	120	121	122	122	125
115°	220	223	222	221	220	217
125°	320	325	323	321	321	286
135°	414	420	421	420	419	320
145°	502	506	509	510	508	314
155°	574	576	577	580	578	264
165°	625	624	624	628	625	176
175°	650	648	647	651	648	62
180°	651	651	651	651	651	

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CATALOG NUMBER: SA2XXDIP-B485D530UB50-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.7	743.7	743.7	743.7	743.7
2.5°	748.0	744.4	736.5	743.7	742.2
5°	743.7	740.8	732.9	738.7	737.2
7.5°	738.7	734.4	726.5	732.2	730.8
10°	730.8	725.8	717.2	722.9	720.8
12.5°	720.1	715.8	707.2	710.8	709.3
15°	707.9	703.6	694.3	697.2	693.6
17.5°	692.9	688.6	679.3	682.9	679.3
20°	676.4	672.2	662.1	664.3	661.4
22.5°	660.0	653.6	644.3	644.3	642.8
25°	640.7	635.0	622.8	624.2	622.8
27.5°	619.2	614.2	604.9	602.8	599.2
30°	597.8	592.1	581.3	579.2	576.3
32.5°	574.9	570.6	559.2	554.9	552.0
35°	552.7	545.6	534.2	529.9	526.3
37.5°	527.7	521.3	509.8	504.8	501.3
40°	502.0	496.3	484.8	478.4	475.5
42.5°	476.9	471.2	459.8	452.6	448.3
45°	449.8	444.8	434.0	426.2	423.3
47.5°	423.3	418.3	406.9	399.0	394.7
50°	395.4	391.9	381.8	371.8	368.3
52.5°	368.3	363.3	354.0	346.1	341.1
55°	340.4	336.1	327.5	318.9	315.3
57.5°	312.5	308.9	299.6	291.0	288.2
60°	284.6	281.7	271.7	263.9	261.7
62.5°	257.4	252.4	245.3	238.1	235.3
65°	229.5	225.2	218.1	211.7	208.1
67.5°	200.9	197.4	190.9	185.9	183.1
70°	174.5	171.6	165.2	160.2	157.3
72.5°	147.3	144.4	140.9	135.9	133.7
75°	120.1	118.7	115.1	110.8	112.3
77.5°	95.8	93.0	91.5	89.4	87.2
80°	71.5	70.8	69.4	67.2	65.8
82.5°	48.6	48.6	47.9	45.0	45.0
85°	29.3	28.6	27.9	25.7	25.0
87.5°	12.9	11.4	10.0	7.9	7.2
90°	0.5	7.1	19.2	18.1	18.7
92.5°	12.1	16.5	17.0	17.6	17.6
95°	28.6	34.1	35.2	35.2	34.1
97.5°	47.8	52.7	54.9	54.9	54.9
100°	69.8	74.2	75.8	75.8	75.3
102.5°	92.8	96.1	98.3	98.9	98.3
105°	118.1	119.8	120.9	122.0	122.0
107.5°	143.4	145.6	145.6	146.1	143.4
110°	167.6	170.9	170.9	170.9	169.2

TEST NUMBER: P998553

CATALOG NUMBER: SA2XXDIP-B485D530UB50-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	193.9	197.2	196.7	195.0	193.9
115°	219.8	223.1	222.0	221.4	219.8
117.5°	245.6	250.0	247.2	245.6	243.9
120°	271.4	275.8	271.4	271.4	269.8
122.5°	295.0	300.5	297.8	296.1	295.0
125°	319.7	324.7	323.0	321.4	320.8
127.5°	343.9	350.0	347.8	345.6	343.9
130°	366.4	373.6	372.5	371.4	369.2
132.5°	391.7	397.2	397.8	395.0	393.4
135°	413.7	419.7	420.8	420.3	418.6
137.5°	437.9	442.8	443.9	443.4	441.2
140°	459.3	464.2	467.0	467.0	464.8
142.5°	481.3	486.2	487.9	488.4	486.2
145°	502.1	506.0	509.3	509.8	507.6
147.5°	520.8	525.8	528.0	529.1	526.9
150°	540.1	543.3	545.5	547.2	545.5
152.5°	557.1	560.4	563.1	565.3	563.1
155°	574.1	575.8	577.4	580.2	578.5
157.5°	588.9	590.0	591.1	595.0	592.2
160°	602.1	603.2	603.8	607.1	604.9
162.5°	614.2	614.2	614.8	618.6	615.9
165°	624.7	624.1	624.1	628.0	625.2
167.5°	634.0	632.3	632.3	636.2	633.4
170°	641.1	639.5	638.9	642.8	639.5
172.5°	646.1	644.4	643.9	647.7	644.4
175°	649.9	648.3	647.2	651.0	647.7
177.5°	652.1	650.5	649.4	652.7	649.4
180°	651.0	651.0	651.0	651.0	651.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.89	14.76	14.84	15.73	16.99	14.67	15.54	15.62	16.51	17.77
	3H	15.23	16.01	16.19	16.99	18.27	16.30	17.08	17.26	18.06	19.34
	4H	15.64	16.38	16.61	17.35	18.64	16.89	17.63	17.87	18.61	19.90
	6H	15.86	16.54	16.84	17.52	18.82	17.30	17.98	18.28	18.96	20.26
	8H	15.89	16.53	16.88	17.53	18.83	17.41	18.05	18.40	19.05	20.35
	12H	15.88	16.50	16.87	17.49	18.81	17.45	18.07	18.45	19.06	20.38
4H	2H	14.36	15.10	15.34	16.08	17.37	15.01	15.75	15.99	16.72	18.01
	3H	15.88	16.50	16.87	17.51	18.81	16.79	17.40	17.78	18.41	19.71
	4H	16.39	16.95	17.39	17.95	19.28	17.47	18.03	18.47	19.03	20.36
	6H	16.69	17.18	17.70	18.20	19.52	17.97	18.45	18.97	19.48	20.80
	8H	16.75	17.20	17.76	18.22	19.56	18.11	18.56	19.12	19.58	20.92
	12H	16.75	17.16	17.78	18.19	19.53	18.17	18.58	19.20	19.61	20.96
8H	4H	16.56	17.02	17.57	18.03	19.37	17.56	18.01	18.57	19.03	20.36
	6H	16.95	17.32	17.98	18.38	19.72	18.12	18.50	19.16	19.56	20.89
	8H	17.05	17.38	18.09	18.43	19.78	18.31	18.64	19.36	19.69	21.04
	12H	17.08	17.37	18.13	18.41	19.81	18.41	18.70	19.46	19.74	21.14
12H	4H	16.55	16.96	17.58	17.99	19.33	17.52	17.93	18.55	18.96	20.31
	6H	16.97	17.30	18.01	18.34	19.70	18.12	18.45	19.16	19.49	20.85
	8H	17.08	17.37	18.13	18.41	19.81	18.31	18.60	19.36	19.64	21.04