

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: P997896

Luminaire Tested: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997896
REPORT IS A COMBINATION OF REPORTS P983633 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

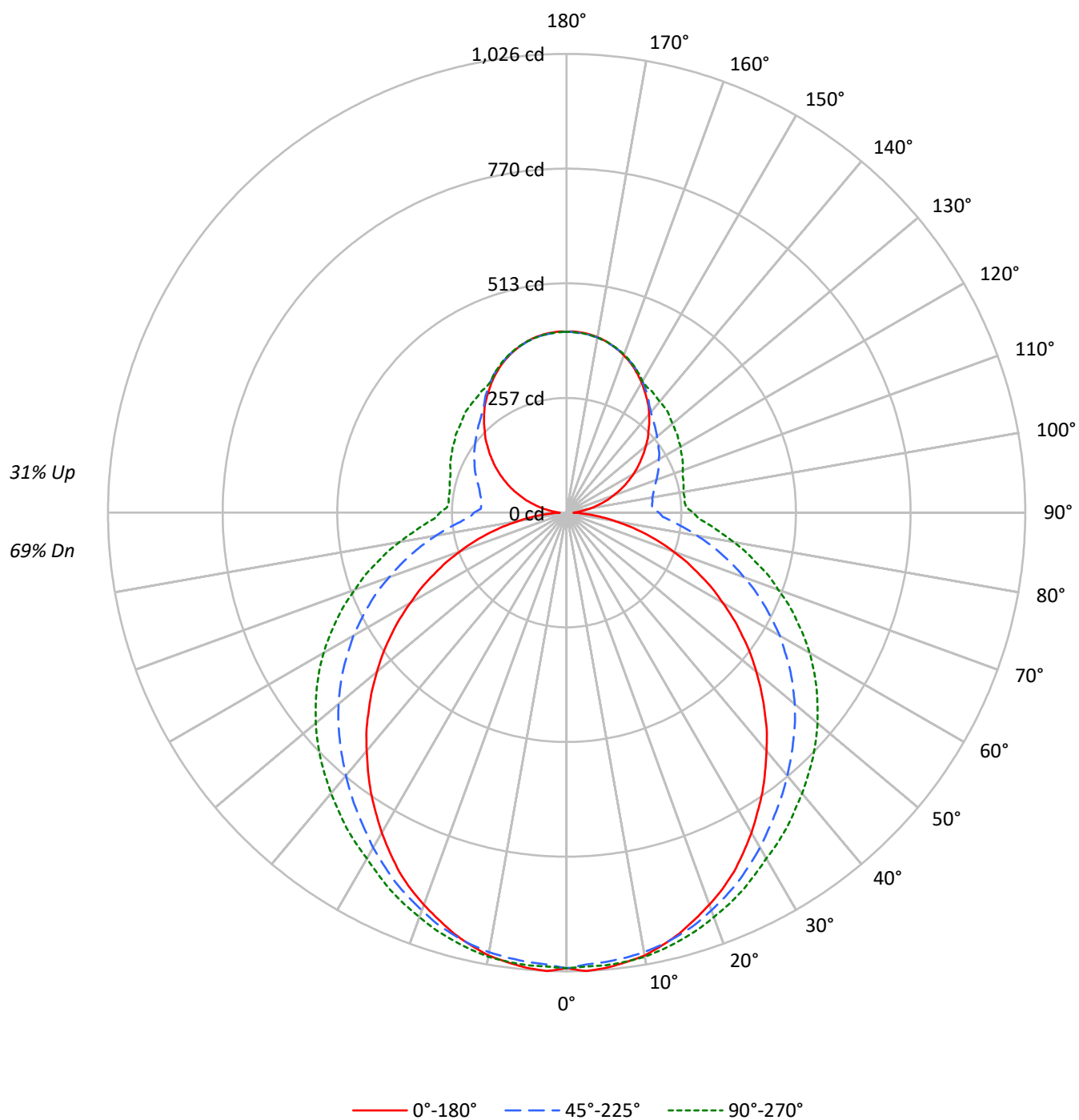
Lumens per Lamp: N/A
Luminaire Lumens: 5021.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 70.6
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: P997896

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-D1

Luminous Intensity Polar Plot



TEST NUMBER: P997896

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-D1

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	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73
1	100	95	90	85	94	89	85	81	79	76	73	70	68	65	62	60	58
2	90	81	74	68	85	77	70	65	68	63	59	60	56	53	53	50	47
3	82	71	63	56	77	67	59	53	60	54	49	53	48	44	46	43	39
4	75	62	54	47	70	59	51	45	53	46	41	47	41	37	41	37	33
5	68	55	46	40	64	53	44	38	47	40	35	42	36	32	37	32	29
6	63	50	41	34	59	47	39	33	42	35	30	38	32	28	33	29	25
7	58	45	36	30	55	43	35	29	38	31	27	34	29	24	30	26	22
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	28	23	20
9	50	37	29	24	47	35	28	23	32	26	21	29	23	19	26	21	18
10	47	34	26	21	44	33	25	21	29	23	19	27	21	18	24	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16130	16130	16130
5°	16202	15441	15354
10°	16094	14906	14688
15°	15867	14353	14006
20°	15580	13772	13358
25°	15298	13216	12771
30°	14901	12651	12190
35°	14500	12105	11764
40°	14078	11634	11339
45°	13674	11207	10970
50°	13243	10813	10604
55°	12787	10395	10233
60°	12235	9958	9842
65°	11653	9457	9392
70°	11000	8921	8909
75°	10159	8383	8452
80°	8846	7821	7978
85°	7515	7294	7570

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13674 cd/sqm

TEST NUMBER: P997896

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.9
10°-20°	277.0	5.5
20°-30°	419.8	8.4
30°-40°	511.2	10.2
40°-50°	550.0	11.0
50°-60°	534.1	10.6
60°-70°	466.4	9.3
70°-80°	359.0	7.1
80°-90°	241.6	4.8
90°-100°	190.9	3.8
100°-110°	200.8	4.0
110°-120°	216.2	4.3
120°-130°	223.7	4.5
130°-140°	219.8	4.4
140°-150°	200.4	4.0
150°-160°	165.4	3.3
160°-170°	109.7	2.2
170°-180°	38.3	0.8
0°-30°	793.4	15.8
0°-40°	1304.6	26.0
0°-60°	2388.7	47.6
0°-90°	3455.7	68.8
90°-120°	607.9	12.1
90°-150°	1251.8	24.9
90°-180°	1565.0	31.2
0°-180°	5021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1022	1018	1009	1018	1016	97
15°	975	978	978	991	989	275
25°	886	896	910	927	932	407
35°	764	789	817	849	860	477
45°	626	666	718	764	778	483
55°	480	533	610	663	682	429
65°	328	400	487	548	567	326
75°	182	264	359	422	442	192
85°	53	145	239	301	322	56
90°	15	105	207	265	283	11
95°	30	102	192	248	265	29
105°	81	125	202	254	271	86
115°	143	161	227	271	286	141
125°	202	205	251	290	303	181
135°	259	262	278	309	319	200
145°	312	315	317	326	332	195
155°	357	358	359	361	360	164
165°	388	388	388	390	389	110
175°	404	403	402	405	403	38
180°	405	405	405	405	405	

TEST NUMBER: P997896

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1019.0	1019.0	1019.0	1019.0	1019.0
2.5°	1026.3	1021.9	1011.6	1019.0	1016.0
5°	1021.9	1017.5	1008.6	1017.5	1016.0
7.5°	1014.5	1011.6	1004.2	1014.5	1013.1
10°	1005.7	1002.7	998.3	1010.1	1008.6
12.5°	990.9	992.4	989.4	1001.2	999.8
15°	974.7	977.6	977.6	990.9	989.4
17.5°	954.0	959.9	964.3	977.6	977.6
20°	933.3	940.7	946.6	962.8	962.8
22.5°	911.2	920.0	928.9	945.1	948.1
25°	886.1	896.4	909.7	927.4	931.8
27.5°	856.5	872.8	887.5	909.7	912.6
30°	827.0	846.2	865.4	889.0	893.4
32.5°	794.5	816.6	840.3	868.3	877.2
35°	763.5	788.6	816.6	849.1	859.5
37.5°	729.5	757.6	793.0	828.5	838.8
40°	695.6	728.0	767.9	806.3	819.6
42.5°	663.1	695.6	742.8	785.6	798.9
45°	626.1	666.0	717.7	763.5	778.3
47.5°	590.7	633.5	692.6	739.9	756.1
50°	553.8	599.6	666.0	716.2	732.5
52.5°	518.3	567.1	638.0	689.6	707.4
55°	479.9	533.1	609.9	663.1	682.3
57.5°	443.0	502.1	578.9	636.5	655.7
60°	403.2	466.7	550.8	606.9	627.6
62.5°	367.7	434.2	518.3	578.9	598.1
65°	327.8	400.2	487.3	547.9	567.1
67.5°	292.4	367.7	456.3	516.9	537.5
70°	254.0	330.8	422.4	485.9	503.6
72.5°	218.6	298.3	391.3	453.4	475.5
75°	181.6	264.3	358.9	422.4	441.6
77.5°	146.2	231.9	327.8	391.3	412.0
80°	110.8	200.8	296.8	358.9	379.5
82.5°	81.2	169.8	267.3	329.3	348.5
85°	53.2	144.7	239.2	301.3	321.9
87.5°	32.5	121.1	215.6	276.2	295.4
90°	15.1	104.8	206.9	265.3	283.3
92.5°	20.8	101.8	192.2	250.1	267.9
95°	29.6	102.4	191.7	247.8	264.9
97.5°	40.0	106.6	193.7	248.3	266.1
100°	53.7	111.1	194.8	249.4	265.4
102.5°	66.6	117.4	198.5	252.0	267.9
105°	80.9	124.7	202.2	254.5	270.7
107.5°	96.6	133.3	207.2	257.8	272.3
110°	110.1	141.6	214.0	261.3	276.5

TEST NUMBER: P997896

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	126.5	152.1	219.8	266.0	281.6
115°	142.6	160.9	226.6	270.6	285.9
117.5°	157.1	171.6	232.0	275.3	289.0
120°	173.2	181.8	238.2	279.6	294.7
122.5°	187.9	192.8	245.7	284.5	297.2
125°	201.8	204.9	251.1	290.0	302.9
127.5°	216.9	219.1	257.6	293.2	305.5
130°	230.9	233.8	264.1	298.8	309.3
132.5°	246.6	248.5	270.9	303.2	314.0
135°	258.8	262.5	277.9	308.7	319.4
137.5°	273.8	276.9	284.9	312.6	321.6
140°	287.1	288.7	293.4	317.0	324.4
142.5°	300.8	302.3	303.4	321.4	327.4
145°	312.3	314.6	316.7	325.9	331.9
147.5°	323.9	326.9	328.3	330.5	333.5
150°	335.8	337.9	339.2	340.3	339.2
152.5°	346.4	348.5	350.2	351.5	350.2
155°	357.0	358.0	359.1	360.8	359.7
157.5°	366.2	366.9	367.6	370.0	368.3
160°	374.4	375.1	375.5	377.5	376.1
162.5°	381.9	381.9	382.3	384.7	383.0
165°	388.4	388.1	388.1	390.5	388.8
167.5°	394.2	393.2	393.2	395.6	393.9
170°	398.7	397.7	397.3	399.7	397.7
172.5°	401.8	400.7	400.4	402.8	400.7
175°	404.2	403.1	402.4	404.8	402.8
177.5°	405.5	404.5	403.8	405.9	403.8
180°	404.8	404.8	404.8	404.8	404.8

TEST NUMBER: P997896

CATALOG NUMBER: SA2XXDIP-B1005D330UB50-4F0-XX-W2A-D1

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	16.41	17.55	17.18	18.35	19.32	19.49	20.63	20.25	21.42	22.39
	3H	17.89	18.92	18.67	19.73	20.73	22.09	23.13	22.87	23.93	24.93
	4H	18.38	19.36	19.17	20.17	21.18	23.36	24.34	24.15	25.15	26.16
	6H	18.67	19.59	19.48	20.41	21.43	24.67	25.58	25.47	26.40	27.43
	8H	18.74	19.61	19.56	20.46	21.48	25.33	26.21	26.15	27.05	28.07
	12H	18.77	19.60	19.59	20.44	21.49	26.07	26.90	26.89	27.74	28.79
4H	2H	17.49	18.47	18.29	19.29	20.30	19.85	20.83	20.64	21.64	22.65
	3H	19.22	20.06	20.03	20.90	21.93	22.66	23.49	23.47	24.34	25.37
	4H	19.85	20.62	20.67	21.47	22.52	24.08	24.85	24.91	25.70	26.75
	6H	20.28	20.96	21.12	21.83	22.88	25.57	26.24	26.40	27.11	28.17
	8H	20.40	21.03	21.24	21.90	22.97	26.33	26.97	27.17	27.83	28.90
	12H	20.45	21.03	21.32	21.92	22.99	27.17	27.75	28.04	28.64	29.71
8H	4H	20.66	21.30	21.50	22.16	23.23	24.25	24.89	25.09	25.75	26.82
	6H	21.31	21.84	22.18	22.75	23.82	25.89	26.43	26.76	27.33	28.40
	8H	21.53	22.01	22.41	22.91	24.00	26.78	27.27	27.66	28.16	29.25
	12H	21.68	22.11	22.56	23.00	24.14	27.79	28.22	28.68	29.11	30.25
12H	4H	20.87	21.45	21.74	22.34	23.41	24.24	24.82	25.10	25.70	26.78
	6H	21.64	22.13	22.52	23.03	24.11	25.92	26.40	26.80	27.30	28.39
	8H	21.96	22.39	22.85	23.28	24.42	26.86	27.29	27.75	28.18	29.32