

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: P998372

Luminaire Tested: SA2XXDIP-B290D925UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998372
REPORT IS A COMBINATION OF REPORTS P984112 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D925UB50-4F0-XX-W2A-D
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

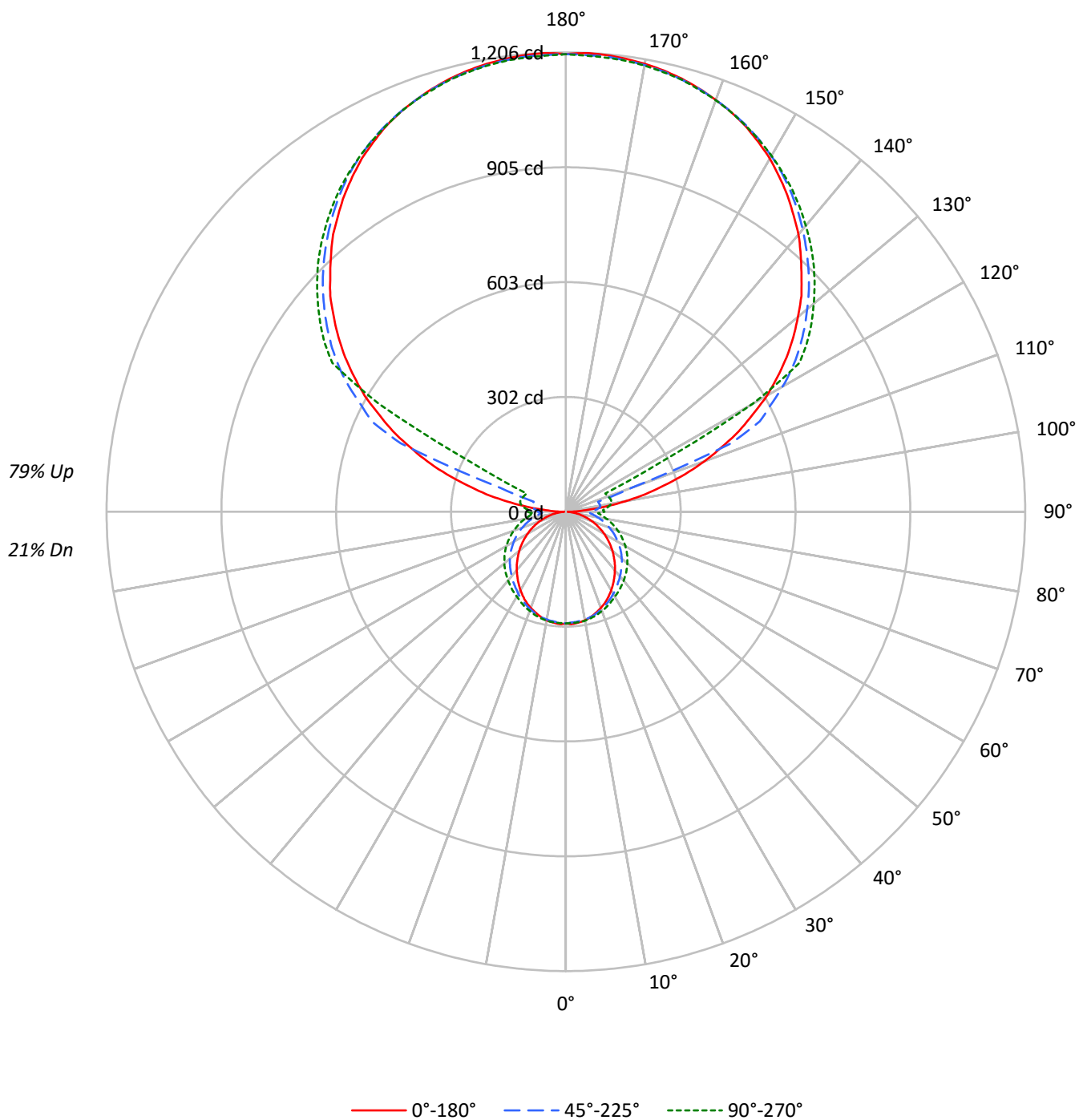
Lumens per Lamp: N/A
Luminaire Lumens: 4643.0 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 41.5
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: P998372

CATALOG NUMBER: SA2XXDIP-B290D925UB50-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P998372

CATALOG NUMBER: SA2XXDIP-B290D925UB50-4F0-XX-W2A-D

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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30
1	91	86	82	79	80	76	73	70	58	56	54	41	40	38	25	25	24
2	82	75	69	64	73	66	61	57	50	47	44	36	33	31	22	21	20
3	75	66	58	53	66	58	52	47	44	40	37	31	29	26	19	18	16
4	68	58	50	44	60	51	45	40	39	34	31	28	25	22	17	15	14
5	62	51	43	37	55	45	39	34	35	30	26	25	21	19	15	13	12
6	57	46	38	32	50	41	34	29	31	26	23	22	19	16	14	12	10
7	53	41	33	28	47	36	30	25	28	23	20	20	17	14	12	11	9
8	49	37	29	24	43	33	26	22	25	21	17	18	15	13	11	9	8
9	45	34	26	21	40	30	24	19	23	18	15	17	13	11	10	9	7
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4643	4643	4643
5°	4663	4444	4419
10°	4631	4290	4228
15°	4566	4131	4032
20°	4484	3963	3845
25°	4402	3803	3676
30°	4288	3641	3508
35°	4172	3483	3386
40°	4052	3348	3264
45°	3936	3226	3157
50°	3812	3112	3052
55°	3680	2991	2946
60°	3520	2866	2832
65°	3356	2723	2703
70°	3166	2568	2563
75°	2926	2413	2433
80°	2547	2250	2296
85°	2161	2101	2180

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3936 cd/sqm

TEST NUMBER: P998372

CATALOG NUMBER: SA2XXDIP-B290D925UB50-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.8	0.6
10°-20°	79.7	1.7
20°-30°	120.8	2.6
30°-40°	147.1	3.2
40°-50°	158.3	3.4
50°-60°	153.7	3.3
60°-70°	134.3	2.9
70°-80°	103.3	2.2
80°-90°	71.3	1.5
90°-100°	87.4	1.9
100°-110°	182.5	3.9
110°-120°	414.7	8.9
120°-130°	662.4	14.3
130°-140°	695.4	15.0
140°-150°	642.2	13.8
150°-160°	515.6	11.1
160°-170°	332.2	7.2
170°-180°	114.3	2.5
0°-30°	228.3	4.9
0°-40°	375.5	8.1
0°-60°	687.5	14.8
0°-90°	996.4	21.5
90°-120°	684.6	14.7
90°-150°	2684.5	57.8
90°-180°	3647.0	78.5
0°-180°	4643.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	293	293	293	293	293	
5°	294	293	290	293	292	28
15°	280	281	281	285	285	79
25°	255	258	262	267	268	117
35°	220	227	235	244	247	137
45°	180	192	207	220	224	139
55°	138	153	176	191	196	124
65°	94	115	140	158	163	94
75°	52	76	103	122	127	55
85°	15	42	69	87	93	16
90°	5	39	74	95	102	6
95°	60	51	83	103	108	70
105°	266	305	90	114	122	285
115°	502	521	562	172	114	494
125°	708	719	749	766	773	631
135°	875	889	901	918	920	676
145°	1014	1014	1028	1037	1035	635
155°	1117	1109	1120	1125	1118	515
165°	1177	1172	1174	1180	1174	333
175°	1204	1198	1200	1206	1197	115
180°	1201	1201	1201	1201	1201	

TEST NUMBER: P998372

CATALOG NUMBER: SA2XXDIP-B290D925UB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	293.3	293.3	293.3	293.3	293.3
2.5°	295.4	294.1	291.1	293.3	292.4
5°	294.1	292.8	290.3	292.8	292.4
7.5°	292.0	291.1	289.0	292.0	291.6
10°	289.4	288.6	287.3	290.7	290.3
12.5°	285.2	285.6	284.8	288.2	287.7
15°	280.5	281.4	281.4	285.2	284.8
17.5°	274.6	276.3	277.5	281.4	281.4
20°	268.6	270.7	272.4	277.1	277.1
22.5°	262.2	264.8	267.3	272.0	272.9
25°	255.0	258.0	261.8	266.9	268.2
27.5°	246.5	251.2	255.4	261.8	262.7
30°	238.0	243.5	249.1	255.9	257.1
32.5°	228.7	235.0	241.8	249.9	252.5
35°	219.7	227.0	235.0	244.4	247.4
37.5°	210.0	218.0	228.2	238.4	241.4
40°	200.2	209.5	221.0	232.1	235.9
42.5°	190.8	200.2	213.8	226.1	229.9
45°	180.2	191.7	206.6	219.7	224.0
47.5°	170.0	182.3	199.3	212.9	217.6
50°	159.4	172.6	191.7	206.1	210.8
52.5°	149.2	163.2	183.6	198.5	203.6
55°	138.1	153.4	175.5	190.8	196.4
57.5°	127.5	144.5	166.6	183.2	188.7
60°	116.0	134.3	158.5	174.7	180.6
62.5°	105.8	125.0	149.2	166.6	172.1
65°	94.4	115.2	140.3	157.7	163.2
67.5°	84.2	105.8	131.3	148.8	154.7
70°	73.1	95.2	121.6	139.8	144.9
72.5°	62.9	85.9	112.6	130.5	136.9
75°	52.3	76.1	103.3	121.6	127.1
77.5°	42.1	66.7	94.4	112.6	118.6
80°	31.9	57.8	85.4	103.3	109.2
82.5°	23.4	48.9	76.9	94.8	100.3
85°	15.3	41.7	68.9	86.7	92.7
87.5°	9.4	34.9	62.1	79.5	85.0
90°	5.2	39.3	73.5	94.8	101.7
92.5°	25.5	44.7	73.2	91.5	97.5
95°	59.9	51.2	82.8	103.2	107.5
97.5°	104.7	51.7	90.2	108.5	114.5
100°	156.9	53.5	92.0	114.7	121.1
102.5°	213.8	226.1	90.8	115.6	123.0
105°	266.4	304.8	89.6	114.0	122.2
107.5°	328.1	360.0	88.4	112.3	120.5
110°	386.8	413.5	183.1	109.8	118.0

TEST NUMBER: P998372

CATALOG NUMBER: SA2XXDIP-B290D925UB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	442.4	464.9	469.7	108.6	115.8
115°	501.5	521.0	561.8	172.2	114.2
117.5°	552.4	573.2	605.8	494.3	270.7
120°	609.8	624.5	657.2	679.5	566.9
122.5°	658.5	672.8	705.9	722.6	727.2
125°	707.6	718.9	749.0	766.5	773.0
127.5°	752.8	764.5	789.0	808.3	813.1
130°	795.4	808.8	827.4	847.1	849.7
132.5°	838.9	849.7	865.6	883.3	885.8
135°	874.9	888.8	900.9	918.5	920.2
137.5°	913.1	923.6	934.5	951.2	951.5
140°	950.5	957.1	967.5	982.2	980.3
142.5°	981.8	987.5	998.8	1010.8	1008.6
145°	1014.4	1013.6	1028.3	1037.0	1034.8
147.5°	1043.1	1040.5	1055.3	1060.0	1057.9
150°	1070.9	1064.9	1078.8	1084.0	1079.6
152.5°	1094.4	1087.5	1100.5	1105.7	1099.6
155°	1117.0	1109.2	1119.6	1124.8	1117.9
157.5°	1135.3	1128.3	1136.1	1142.2	1135.3
160°	1150.9	1145.7	1150.9	1156.1	1150.0
162.5°	1164.8	1159.6	1164.0	1170.0	1162.2
165°	1177.0	1171.8	1174.4	1180.5	1174.4
167.5°	1186.6	1181.3	1183.9	1190.0	1182.2
170°	1194.4	1189.2	1190.9	1197.0	1189.2
172.5°	1199.6	1194.4	1196.1	1202.2	1194.4
175°	1203.9	1197.9	1199.6	1205.7	1197.0
177.5°	1205.7	1199.6	1200.5	1206.5	1198.7
180°	1201.3	1201.3	1201.3	1201.3	1201.3

TEST NUMBER: P998372

CATALOG NUMBER: SA2XXDIP-B290D925UB50-4F0-XX-W2A-D

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	7.03	7.70	8.19	8.85	10.48	10.11	10.78	11.27	11.93	13.55
	3H	8.48	9.08	9.65	10.24	11.88	12.68	13.29	13.85	14.45	16.09
	4H	8.95	9.52	10.12	10.68	12.33	13.93	14.50	15.11	15.66	17.31
	6H	9.22	9.75	10.41	10.91	12.57	15.22	15.75	16.40	16.91	18.56
	8H	9.28	9.78	10.46	10.96	12.60	15.87	16.37	17.06	17.55	19.20
	12H	9.29	9.76	10.48	10.94	12.61	16.59	17.07	17.78	18.24	19.91
4H	2H	8.06	8.64	9.25	9.80	11.44	10.42	10.99	11.60	12.15	13.79
	3H	9.75	10.24	10.94	11.42	13.08	13.19	13.68	14.38	14.86	16.52
	4H	10.37	10.82	11.56	11.99	13.66	14.60	15.05	15.79	16.22	17.90
	6H	10.77	11.16	11.97	12.35	14.02	16.06	16.44	17.25	17.64	19.30
	8H	10.88	11.24	12.07	12.42	14.10	16.81	17.17	18.01	18.36	20.04
	12H	10.91	11.24	12.12	12.44	14.12	17.63	17.96	18.84	19.16	20.84
8H	4H	11.14	11.50	12.34	12.69	14.37	14.73	15.09	15.92	16.28	17.96
	6H	11.77	12.07	12.98	13.30	14.97	16.35	16.65	17.57	17.88	19.56
	8H	11.99	12.25	13.21	13.45	15.15	17.24	17.50	18.46	18.71	20.40
	12H	12.11	12.34	13.33	13.55	15.27	18.22	18.45	19.45	19.66	21.38
12H	4H	11.33	11.66	12.54	12.86	14.54	14.70	15.02	15.91	16.22	17.91
	6H	12.10	12.36	13.32	13.57	15.26	16.37	16.64	17.59	17.84	19.54
	8H	12.40	12.63	13.62	13.83	15.56	17.29	17.52	18.52	18.73	20.45