

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: P998227

Luminaire Tested: SA2XXDIP-B290D530UB30-4F0-XX-W2A-D4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998227
REPORT IS A COMBINATION OF REPORTS P983967 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B290D530UB30-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

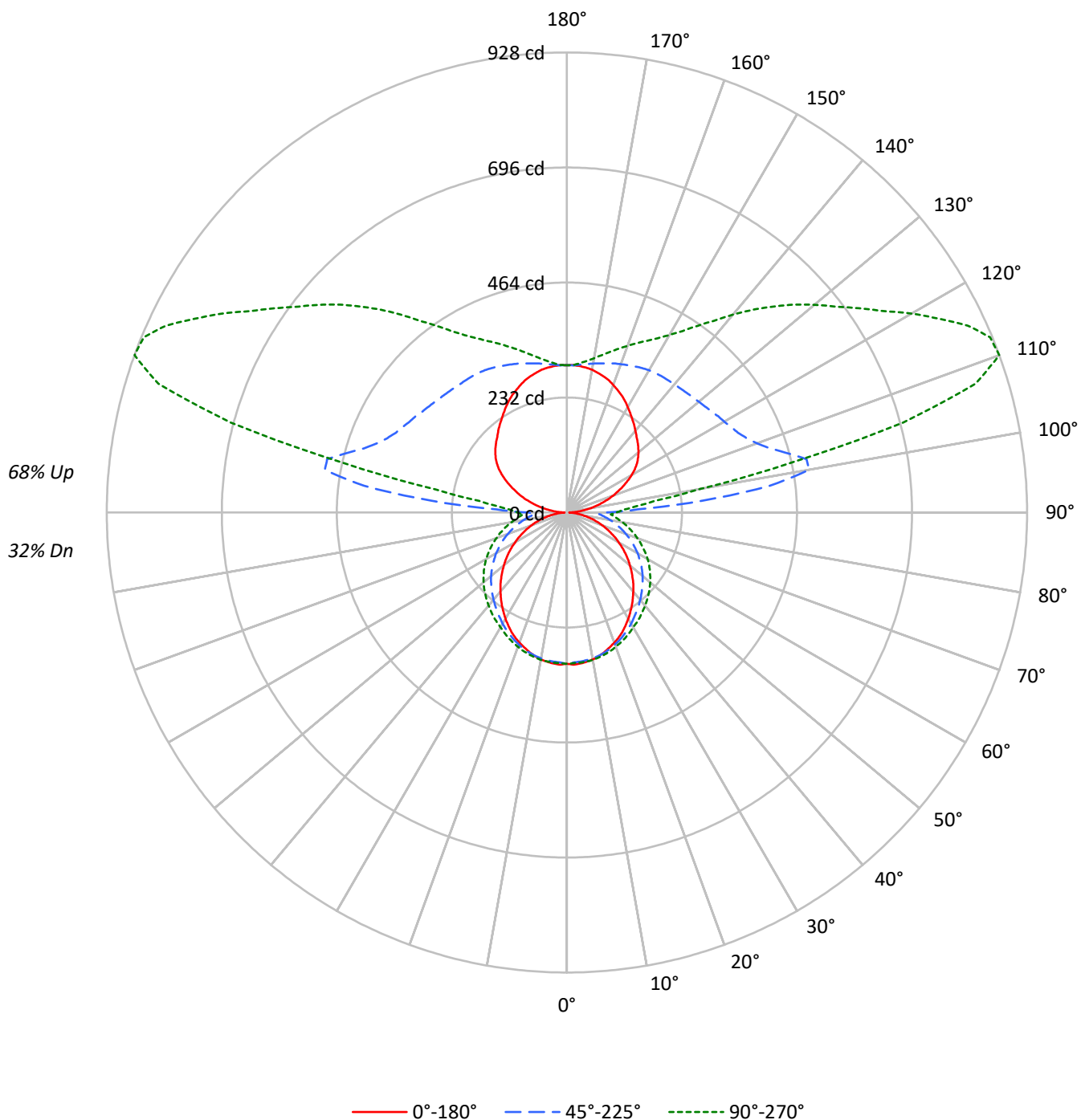
Lumens per Lamp: N/A
Luminaire Lumens: 3237.3 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 28.4
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: P998227

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-D4

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	103	103	103	103	93	93	93	93	73	73	73	56	56	56	40	40	40
1	93	88	84	80	83	79	76	73	63	60	58	47	46	44	33	32	31
2	84	76	70	65	75	69	63	59	54	51	47	41	39	36	29	27	26
3	76	67	59	53	68	60	54	49	48	43	39	36	33	30	25	23	21
4	70	59	51	45	62	53	46	41	42	37	33	32	28	26	22	20	18
5	64	52	44	38	57	47	40	35	37	32	28	28	25	22	20	18	16
6	59	47	38	33	52	42	35	30	33	28	24	26	22	19	18	16	14
7	54	42	34	28	48	38	31	26	30	25	21	23	19	17	16	14	12
8	50	38	30	25	45	34	27	23	27	22	19	21	17	15	15	13	11
9	46	34	27	22	42	31	25	20	25	20	17	19	16	13	14	11	10
10	43	31	24	19	39	28	22	18	23	18	15	18	14	12	13	10	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4830	4830	4830
5°	4850	4623	4597
10°	4818	4463	4398
15°	4750	4297	4193
20°	4664	4123	4000
25°	4580	3956	3824
30°	4461	3788	3650
35°	4341	3624	3522
40°	4214	3483	3395
45°	4095	3356	3284
50°	3965	3237	3175
55°	3829	3112	3064
60°	3663	2981	2947
65°	3487	2832	2812
70°	3291	2670	2668
75°	3043	2509	2530
80°	2651	2343	2388
85°	2246	2183	2267

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4095 cd/sqm

TEST NUMBER: P998227

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.9	0.9
10°-20°	82.9	2.6
20°-30°	125.7	3.9
30°-40°	153.0	4.7
40°-50°	164.7	5.1
50°-60°	159.9	4.9
60°-70°	139.6	4.3
70°-80°	107.5	3.3
80°-90°	73.9	2.3
90°-100°	170.1	5.3
100°-110°	443.4	13.7
110°-120°	451.9	14.0
120°-130°	365.3	11.3
130°-140°	288.4	8.9
140°-150°	214.6	6.6
150°-160°	150.2	4.6
160°-170°	88.4	2.7
170°-180°	28.8	0.9
0°-30°	237.5	7.3
0°-40°	390.6	12.1
0°-60°	715.1	22.1
0°-90°	1036.1	32.0
90°-120°	1065.5	32.9
90°-150°	1933.8	59.7
90°-180°	2201.0	68.0
0°-180°	3237.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	305	305	305	305	305	
5°	306	305	302	305	304	29
15°	292	293	293	297	296	82
25°	265	268	272	278	279	122
35°	229	236	244	254	257	143
45°	188	199	215	229	233	145
55°	144	160	183	198	204	129
65°	98	120	146	164	170	98
75°	54	79	107	126	132	58
85°	16	43	72	90	96	17
90°	5	38	78	95	100	4
95°	24	73	275	152	138	23
105°	72	120	461	810	702	77
115°	125	162	381	771	892	123
125°	172	204	356	619	718	153
135°	202	240	341	512	587	156
145°	230	264	335	418	460	144
155°	261	282	325	368	382	120
165°	284	293	311	330	335	80
175°	296	297	299	303	302	28
180°	297	297	297	297	297	

TEST NUMBER: P998227

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	305.1	305.1	305.1	305.1	305.1
2.5°	307.3	305.9	302.8	305.1	304.2
5°	305.9	304.6	302.0	304.6	304.2
7.5°	303.7	302.8	300.6	303.7	303.3
10°	301.1	300.2	298.9	302.4	302.0
12.5°	296.7	297.1	296.2	299.8	299.3
15°	291.8	292.7	292.7	296.7	296.2
17.5°	285.6	287.4	288.7	292.7	292.7
20°	279.4	281.6	283.4	288.3	288.3
22.5°	272.8	275.4	278.1	283.0	283.8
25°	265.3	268.4	272.3	277.6	279.0
27.5°	256.4	261.3	265.7	272.3	273.2
30°	247.6	253.3	259.1	266.2	267.5
32.5°	237.9	244.5	251.6	260.0	262.6
35°	228.6	236.1	244.5	254.2	257.3
37.5°	218.4	226.8	237.4	248.0	251.1
40°	208.2	218.0	229.9	241.4	245.4
42.5°	198.5	208.2	222.4	235.2	239.2
45°	187.5	199.4	214.9	228.6	233.0
47.5°	176.8	189.7	207.4	221.5	226.4
50°	165.8	179.5	199.4	214.4	219.3
52.5°	155.2	169.8	191.0	206.5	211.8
55°	143.7	159.6	182.6	198.5	204.3
57.5°	132.6	150.3	173.3	190.6	196.3
60°	120.7	139.7	164.9	181.7	187.9
62.5°	110.1	130.0	155.2	173.3	179.1
65°	98.1	119.8	145.9	164.0	169.8
67.5°	87.5	110.1	136.6	154.7	160.9
70°	76.0	99.0	126.4	145.5	150.8
72.5°	65.4	89.3	117.2	135.7	142.4
75°	54.4	79.1	107.4	126.4	132.2
77.5°	43.8	69.4	98.1	117.2	123.4
80°	33.2	60.1	88.9	107.4	113.6
82.5°	24.3	50.8	80.0	98.6	104.3
85°	15.9	43.3	71.6	90.2	96.4
87.5°	9.7	36.3	64.5	82.7	88.4
90°	5.0	37.8	77.8	94.6	100.2
92.5°	12.6	54.6	142.4	112.2	111.8
95°	23.5	73.4	274.8	152.1	138.0
97.5°	32.8	86.9	412.8	233.8	178.5
100°	47.1	98.9	495.6	398.6	269.9
102.5°	59.8	109.8	495.3	628.4	460.7
105°	71.9	120.1	461.4	810.2	702.3
107.5°	85.6	130.5	429.7	873.9	863.9
110°	98.9	141.2	407.7	859.4	927.8

TEST NUMBER: P998227

CATALOG NUMBER: SA2XXDIP-B290D530UB30-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	111.5	151.7	392.0	819.5	923.5
115°	124.6	161.7	380.7	770.8	892.0
117.5°	137.9	172.3	373.1	724.6	846.2
120°	150.4	182.5	366.5	682.6	802.5
122.5°	162.4	193.5	361.5	649.4	756.2
125°	172.3	203.7	355.5	619.2	718.3
127.5°	180.9	213.8	351.2	592.5	682.2
130°	188.3	223.2	347.4	565.9	651.8
132.5°	195.2	232.4	344.2	538.6	620.7
135°	201.5	240.4	341.4	511.8	587.4
137.5°	207.8	247.3	339.2	484.8	554.6
140°	215.2	253.1	336.9	460.6	520.8
142.5°	222.7	258.2	336.0	437.5	487.4
145°	229.7	264.0	334.8	418.4	459.7
147.5°	237.7	268.6	333.1	401.5	434.3
150°	245.7	273.2	331.4	388.5	413.1
152.5°	253.7	277.7	328.5	378.0	396.5
155°	261.1	282.0	325.1	367.6	382.2
157.5°	267.4	285.4	321.7	358.0	369.7
160°	273.7	288.8	318.3	348.2	357.7
162.5°	280.0	291.4	315.4	339.1	346.2
165°	284.5	293.1	311.4	330.2	335.4
167.5°	288.5	294.8	308.0	322.2	325.1
170°	292.5	295.6	305.1	314.8	316.0
172.5°	294.8	296.6	301.7	308.2	308.5
175°	296.5	296.8	299.4	303.1	302.3
177.5°	297.7	297.1	297.1	299.4	297.7
180°	297.1	297.1	297.1	297.1	297.1

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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	8.76	9.50	9.84	10.60	12.10	11.83	12.58	12.92	13.68	15.18
	3H	10.21	10.88	11.31	11.99	13.51	14.41	15.09	15.51	16.19	17.71
	4H	10.68	11.32	11.79	12.43	13.95	15.66	16.31	16.77	17.41	18.93
	6H	10.96	11.55	12.08	12.66	14.20	16.95	17.55	18.07	18.65	20.19
	8H	11.01	11.58	12.13	12.70	14.23	17.61	18.18	18.73	19.30	20.83
	12H	11.03	11.57	12.15	12.68	14.24	18.33	18.87	19.46	19.98	21.54
4H	2H	9.79	10.44	10.91	11.54	13.07	12.15	12.79	13.27	13.90	15.42
	3H	11.49	12.04	12.61	13.16	14.70	14.93	15.48	16.05	16.60	18.14
	4H	12.11	12.61	13.24	13.73	15.29	16.34	16.85	17.47	17.96	19.52
	6H	12.52	12.95	13.65	14.09	15.64	17.81	18.24	18.94	19.38	20.93
	8H	12.63	13.03	13.76	14.16	15.73	18.56	18.97	19.69	20.10	21.67
	12H	12.66	13.03	13.81	14.18	15.75	19.38	19.75	20.53	20.90	22.47
8H	4H	12.89	13.30	14.02	14.43	16.00	16.48	16.89	17.61	18.02	19.59
	6H	13.52	13.86	14.67	15.03	16.60	18.10	18.44	19.26	19.62	21.18
	8H	13.74	14.04	14.90	15.19	16.78	18.99	19.29	20.15	20.44	22.03
	12H	13.87	14.13	15.03	15.28	16.90	19.98	20.25	21.14	21.40	23.01
12H	4H	13.08	13.45	14.23	14.60	16.17	16.45	16.82	17.60	17.96	19.53
	6H	13.85	14.15	15.01	15.31	16.89	18.13	18.43	19.29	19.58	21.16
	8H	14.15	14.41	15.31	15.57	17.18	19.05	19.31	20.21	20.47	22.08