

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: P998451

Luminaire Tested: SA2XXDIP-B485D330UB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998451
REPORT IS A COMBINATION OF REPORTS P984194 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D330UB2750-4F0-XX-W2A-D_3500K
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

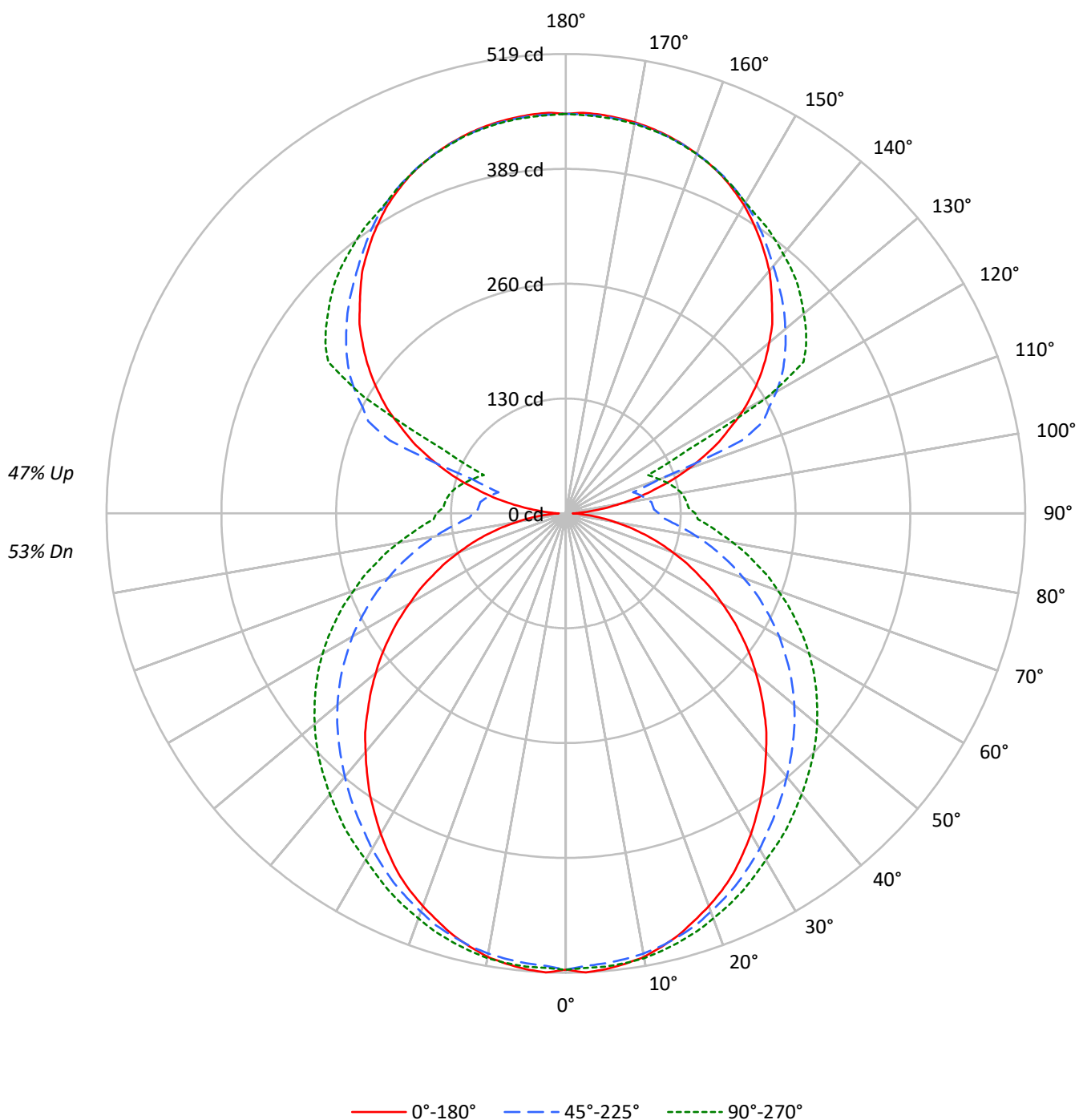
Lumens per Lamp: N/A
Luminaire Lumens: 3291.0 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 33.3
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: P998451

CATALOG NUMBER: SA2XXDIP-B485D330UB2750-4F0-XX-W2A-D_3500K

Luminous Intensity Polar Plot



TEST NUMBER: P998451

CATALOG NUMBER: SA2XXDIP-B485D330UB2750-4F0-XX-W2A-D_3500K

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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59
1	97	92	87	83	89	85	81	78	72	69	67	60	58	56	50	48	47
2	88	79	72	67	81	73	67	62	62	58	54	52	49	46	43	40	38
3	80	69	61	55	73	64	57	51	54	49	45	46	41	38	37	34	32
4	73	61	52	46	67	56	49	43	48	42	38	40	36	32	33	30	27
5	66	54	45	39	61	50	42	37	43	37	32	36	31	28	30	26	23
6	61	48	40	34	56	45	37	32	38	32	28	32	28	24	27	23	20
7	56	44	35	29	52	41	33	28	35	29	24	29	25	21	24	21	18
8	52	39	31	26	48	37	29	24	32	26	22	27	22	19	22	19	16
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	14
10	45	33	25	21	42	31	24	19	27	21	17	23	18	15	19	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8160	8160	8160
5°	8197	7812	7768
10°	8142	7541	7431
15°	8027	7262	7087
20°	7883	6968	6758
25°	7740	6686	6461
30°	7539	6400	6167
35°	7336	6125	5951
40°	7122	5886	5736
45°	6919	5670	5549
50°	6701	5470	5365
55°	6470	5260	5177
60°	6190	5039	4979
65°	5898	4784	4752
70°	5565	4513	4508
75°	5141	4240	4276
80°	4471	3958	4036
85°	3800	3690	3831

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6919 cd/sqm

TEST NUMBER: P998451

CATALOG NUMBER: SA2XXDIP-B485D330UB2750-4F0-XX-W2A-D_3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	1.5
10°-20°	140.2	4.3
20°-30°	212.4	6.5
30°-40°	258.6	7.9
40°-50°	278.2	8.5
50°-60°	270.2	8.2
60°-70°	236.0	7.2
70°-80°	181.6	5.5
80°-90°	122.4	3.7
90°-100°	98.8	3.0
100°-110°	116.8	3.5
110°-120°	187.6	5.7
120°-130°	266.6	8.1
130°-140°	268.7	8.2
140°-150°	242.5	7.4
150°-160°	193.7	5.9
160°-170°	124.8	3.8
170°-180°	43.0	1.3
0°-30°	401.4	12.2
0°-40°	660.0	20.1
0°-60°	1208.5	36.7
0°-90°	1748.5	53.1
90°-120°	403.2	12.3
90°-150°	1181.0	35.9
90°-180°	1542.0	46.9
0°-180°	3291.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	516	516	516	516	516	
5°	517	515	510	515	514	49
15°	493	495	495	501	501	139
25°	448	454	460	469	471	206
35°	386	399	413	430	435	241
45°	317	337	363	386	394	245
55°	243	270	309	336	345	217
65°	166	202	246	277	287	165
75°	92	134	182	214	223	97
85°	27	73	121	152	163	28
90°	8	55	105	137	146	6
95°	27	52	99	129	137	30
105°	103	134	84	114	123	110
115°	191	204	246	118	102	188
125°	267	271	301	324	332	238
135°	329	334	345	364	369	255
145°	381	381	386	393	395	239
155°	420	417	421	423	420	193
165°	442	440	441	444	441	125
175°	452	450	451	453	450	43
180°	451	451	451	451	451	

TEST NUMBER: P998451

CATALOG NUMBER: SA2XXDIP-B485D330UB2750-4F0-XX-W2A-D_3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	515.5	515.5	515.5	515.5	515.5
2.5°	519.2	517.0	511.8	515.5	514.0
5°	517.0	514.8	510.3	514.8	514.0
7.5°	513.3	511.8	508.0	513.3	512.5
10°	508.8	507.3	505.0	511.0	510.3
12.5°	501.3	502.1	500.6	506.5	505.8
15°	493.1	494.6	494.6	501.3	500.6
17.5°	482.6	485.6	487.9	494.6	494.6
20°	472.2	475.9	478.9	487.1	487.1
22.5°	461.0	465.5	469.9	478.2	479.6
25°	448.3	453.5	460.2	469.2	471.4
27.5°	433.3	441.5	449.0	460.2	461.7
30°	418.4	428.1	437.8	449.8	452.0
32.5°	401.9	413.2	425.1	439.3	443.8
35°	386.3	399.0	413.2	429.6	434.8
37.5°	369.1	383.3	401.2	419.1	424.4
40°	351.9	368.3	388.5	407.9	414.6
42.5°	335.5	351.9	375.8	397.5	404.2
45°	316.8	336.9	363.1	386.3	393.7
47.5°	298.8	320.5	350.4	374.3	382.5
50°	280.2	303.3	336.9	362.4	370.6
52.5°	262.2	286.9	322.8	348.9	357.9
55°	242.8	269.7	308.6	335.5	345.2
57.5°	224.1	254.0	292.9	322.0	331.7
60°	204.0	236.1	278.7	307.1	317.5
62.5°	186.0	219.7	262.2	292.9	302.6
65°	165.9	202.5	246.5	277.2	286.9
67.5°	147.9	186.0	230.9	261.5	271.9
70°	128.5	167.4	213.7	245.8	254.8
72.5°	110.6	150.9	198.0	229.4	240.6
75°	91.9	133.7	181.5	213.7	223.4
77.5°	74.0	117.3	165.9	198.0	208.4
80°	56.0	101.6	150.2	181.5	192.0
82.5°	41.1	85.9	135.2	166.6	176.3
85°	26.9	73.2	121.0	152.4	162.9
87.5°	16.4	61.3	109.1	139.7	149.4
90°	7.8	54.7	105.1	136.7	146.3
92.5°	14.9	53.2	99.7	129.5	138.8
95°	27.2	51.6	98.6	128.7	137.3
97.5°	43.4	48.8	97.4	125.9	135.3
100°	63.0	46.0	93.3	123.6	132.5
102.5°	83.9	107.8	88.8	119.3	128.4
105°	103.0	134.5	84.2	113.9	123.4
107.5°	126.2	152.3	79.6	108.6	118.1
110°	147.7	169.4	111.7	102.9	112.5

TEST NUMBER: P998451

CATALOG NUMBER: SA2XXDIP-B485D330UB2750-4F0-XX-W2A-D_3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	168.6	186.4	215.2	98.3	107.5
115°	190.8	204.5	246.3	117.5	102.3
117.5°	209.3	221.8	258.7	234.4	156.4
120°	230.8	238.7	274.5	299.3	263.5
122.5°	249.1	255.1	289.3	311.4	318.4
125°	267.0	271.3	301.4	323.9	331.5
127.5°	284.0	287.8	312.9	334.8	341.9
130°	300.0	304.4	323.7	345.3	350.9
132.5°	316.3	319.8	334.7	354.7	360.4
135°	329.3	334.5	344.9	363.9	369.2
137.5°	343.6	347.5	354.6	372.1	376.3
140°	357.7	359.6	364.7	379.5	382.4
142.5°	369.4	371.0	375.3	386.9	388.9
145°	381.1	380.8	386.4	393.1	395.2
147.5°	391.9	390.9	396.5	398.8	399.8
150°	402.4	400.1	405.3	407.3	405.6
152.5°	411.2	408.6	413.5	415.4	413.1
155°	419.7	416.7	420.7	422.6	420.0
157.5°	426.5	423.9	426.9	429.1	426.5
160°	432.4	430.5	432.4	434.4	432.1
162.5°	437.6	435.7	437.3	439.6	436.7
165°	442.2	440.2	441.2	443.5	441.2
167.5°	445.8	443.8	444.8	447.1	444.2
170°	448.7	446.8	447.4	449.7	446.8
172.5°	450.7	448.7	449.4	451.7	448.7
175°	452.3	450.0	450.7	453.0	449.7
177.5°	453.0	450.7	451.0	453.3	450.4
180°	451.4	451.4	451.4	451.4	451.4

TEST NUMBER: P998451

CATALOG NUMBER: SA2XXDIP-B485D330UB2750-4F0-XX-W2A-D_3500K

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	12.78	13.73	13.70	14.67	15.89	15.86	16.80	16.78	17.75	18.97
	3H	14.25	15.10	15.18	16.06	17.30	18.45	19.31	19.38	20.26	21.50
	4H	14.73	15.54	15.67	16.50	17.75	19.71	20.52	20.65	21.48	22.73
	6H	15.01	15.77	15.97	16.73	18.00	21.01	21.76	21.96	22.73	23.99
	8H	15.08	15.80	16.04	16.78	18.04	21.67	22.39	22.63	23.37	24.64
	12H	15.10	15.78	16.06	16.76	18.05	22.40	23.08	23.37	24.06	25.35
4H	2H	13.84	14.65	14.79	15.61	16.86	16.20	17.01	17.14	17.97	19.22
	3H	15.55	16.24	16.51	17.23	18.50	18.99	19.68	19.95	20.67	21.94
	4H	16.18	16.82	17.15	17.80	19.09	20.41	21.05	21.38	22.03	23.32
	6H	16.60	17.15	17.58	18.16	19.45	21.88	22.44	22.86	23.44	24.73
	8H	16.71	17.23	17.69	18.23	19.53	22.64	23.16	23.63	24.16	25.47
	12H	16.76	17.23	17.76	18.25	19.56	23.48	23.95	24.48	24.97	26.28
8H	4H	16.98	17.50	17.96	18.50	19.80	20.56	21.08	21.54	22.08	23.39
	6H	17.61	18.05	18.62	19.09	20.39	22.20	22.63	23.20	23.67	24.97
	8H	17.84	18.23	18.85	19.25	20.57	23.09	23.48	24.10	24.50	25.82
	12H	17.97	18.32	18.99	19.34	20.70	24.09	24.43	25.10	25.45	26.81
12H	4H	17.18	17.65	18.18	18.67	19.98	20.54	21.02	21.54	22.03	23.34
	6H	17.95	18.34	18.96	19.36	20.68	22.22	22.61	23.24	23.64	24.96
	8H	18.26	18.60	19.28	19.62	20.99	23.16	23.50	24.17	24.52	25.88