

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: P998482

Luminaire Tested: SA2XXDIP-B485D330UB40-4F0-XX-W2A-D4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998482
REPORT IS A COMBINATION OF REPORTS P984225 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D330UB40-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

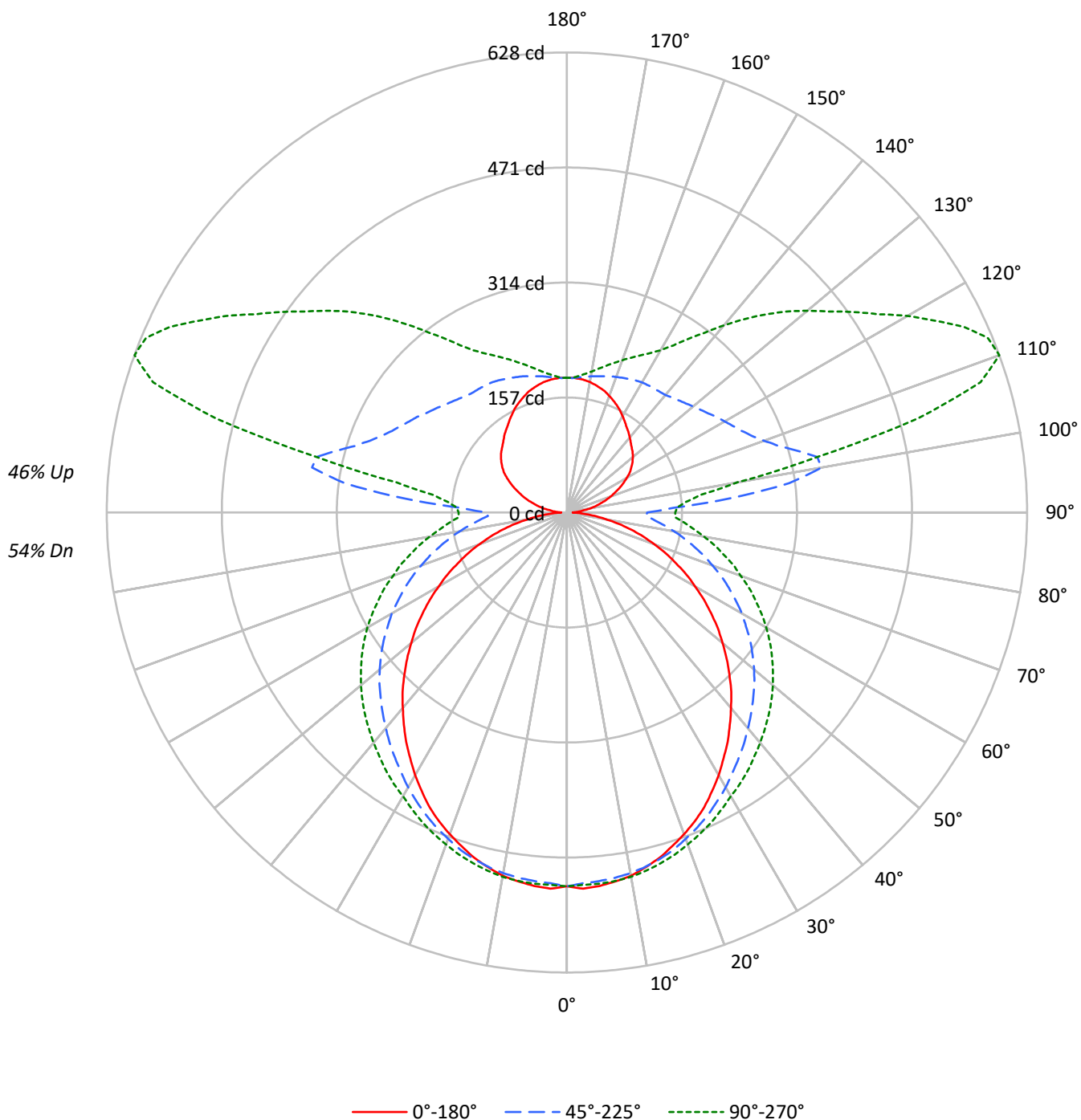
Lumens per Lamp: N/A
Luminaire Lumens: 3229.5 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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: P998482

CATALOG NUMBER: SA2XXDIP-B485D330UB40-4F0-XX-W2A-D4

Luminous Intensity Polar Plot



TEST NUMBER: P998482

CATALOG NUMBER: SA2XXDIP-B485D330UB40-4F0-XX-W2A-D4

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	72	72	72	59	59	59
1	97	92	87	83	90	85	81	78	72	69	67	61	59	57	50	48	47
2	88	79	73	67	81	74	68	62	63	58	54	52	49	46	43	41	38
3	80	69	61	55	73	64	57	51	55	49	45	46	42	38	38	35	32
4	73	61	52	46	67	57	49	43	48	42	38	41	36	32	33	30	27
5	66	54	45	39	61	50	43	37	43	37	32	36	31	28	30	26	23
6	61	48	40	34	56	45	37	32	39	32	28	33	28	24	27	23	20
7	56	44	35	29	52	41	33	28	35	29	24	30	25	21	25	21	18
8	52	39	31	26	48	37	30	24	32	26	22	27	22	19	23	19	16
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	14
10	45	33	26	21	42	31	24	19	27	21	17	23	18	15	19	16	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8078	8078	8078
5°	8113	7733	7689
10°	8059	7464	7356
15°	7946	7188	7014
20°	7802	6896	6690
25°	7660	6618	6395
30°	7461	6336	6104
35°	7260	6063	5891
40°	7049	5826	5678
45°	6849	5612	5493
50°	6631	5415	5310
55°	6403	5205	5125
60°	6127	4986	4929
65°	5837	4736	4704
70°	5509	4467	4462
75°	5091	4198	4232
80°	4431	3916	3996
85°	3757	3653	3791

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6849 cd/sqm

TEST NUMBER: P998482

CATALOG NUMBER: SA2XXDIP-B485D330UB40-4F0-XX-W2A-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	1.5
10°-20°	138.7	4.3
20°-30°	210.2	6.5
30°-40°	256.0	7.9
40°-50°	275.4	8.5
50°-60°	267.5	8.3
60°-70°	233.6	7.2
70°-80°	179.8	5.6
80°-90°	121.6	3.8
90°-100°	157.6	4.9
100°-110°	312.5	9.7
110°-120°	304.8	9.4
120°-130°	240.0	7.4
130°-140°	184.3	5.7
140°-150°	133.7	4.1
150°-160°	92.9	2.9
160°-170°	54.7	1.7
170°-180°	17.8	0.6
0°-30°	397.3	12.3
0°-40°	653.3	20.2
0°-60°	1196.2	37.0
0°-90°	1731.1	53.6
90°-120°	774.9	24.0
90°-150°	1332.9	41.3
90°-180°	1498.0	46.4
0°-180°	3229.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	512	510	505	510	509	49
15°	488	490	490	496	496	137
25°	444	449	456	464	467	204
35°	382	395	409	425	430	239
45°	314	334	359	382	390	242
55°	240	267	305	332	342	215
65°	164	200	244	274	284	163
75°	91	132	180	212	221	96
85°	27	72	120	151	161	28
90°	8	55	110	139	148	6
95°	18	71	224	165	162	17
105°	47	90	326	558	496	50
115°	79	107	264	519	599	78
125°	108	127	236	411	477	96
135°	125	149	216	332	382	97
145°	142	163	207	262	289	89
155°	162	174	201	227	236	74
165°	176	181	193	204	208	50
175°	183	184	185	188	187	17
180°	184	184	184	184	184	

TEST NUMBER: P998482

CATALOG NUMBER: SA2XXDIP-B485D330UB40-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.3	510.3	510.3	510.3	510.3
2.5°	514.0	511.7	506.6	510.3	508.8
5°	511.7	509.5	505.1	509.5	508.8
7.5°	508.0	506.6	502.9	508.0	507.3
10°	503.6	502.1	499.9	505.8	505.1
12.5°	496.2	497.0	495.5	501.4	500.7
15°	488.1	489.6	489.6	496.2	495.5
17.5°	477.7	480.7	482.9	489.6	489.6
20°	467.4	471.1	474.0	482.2	482.2
22.5°	456.3	460.7	465.2	473.3	474.8
25°	443.7	448.9	455.5	464.4	466.6
27.5°	428.9	437.1	444.4	455.5	457.0
30°	414.1	423.7	433.4	445.2	447.4
32.5°	397.9	409.0	420.8	434.8	439.3
35°	382.3	394.9	409.0	425.2	430.4
37.5°	365.3	379.4	397.1	414.9	420.0
40°	348.3	364.6	384.5	403.8	410.4
42.5°	332.0	348.3	372.0	393.4	400.1
45°	313.6	333.5	359.4	382.3	389.7
47.5°	295.8	317.3	346.8	370.5	378.6
50°	277.3	300.2	333.5	358.7	366.8
52.5°	259.6	284.0	319.5	345.4	354.2
55°	240.3	267.0	305.4	332.0	341.7
57.5°	221.9	251.4	289.9	318.7	328.3
60°	201.9	233.7	275.8	303.9	314.3
62.5°	184.1	217.4	259.6	289.9	299.5
65°	164.2	200.4	244.0	274.4	284.0
67.5°	146.4	184.1	228.5	258.8	269.2
70°	127.2	165.7	211.5	243.3	252.2
72.5°	109.4	149.4	196.0	227.0	238.1
75°	91.0	132.4	179.7	211.5	221.1
77.5°	73.2	116.1	164.2	196.0	206.3
80°	55.5	100.6	148.6	179.7	190.1
82.5°	40.7	85.0	133.9	164.9	174.5
85°	26.6	72.5	119.8	150.9	161.2
87.5°	16.3	60.6	108.0	138.3	147.9
90°	7.8	55.0	109.6	138.7	147.8
92.5°	12.0	62.6	145.4	144.9	150.3
95°	18.3	71.1	223.5	165.4	162.3
97.5°	23.6	77.1	305.7	212.2	183.6
100°	32.4	81.6	353.2	310.4	235.9
102.5°	39.7	86.0	349.8	448.8	350.2
105°	46.8	90.2	325.5	557.6	495.9
107.5°	55.3	94.2	302.6	593.2	592.1
110°	63.1	98.4	286.2	580.5	627.9

TEST NUMBER: P998482

CATALOG NUMBER: SA2XXDIP-B485D330UB40-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	70.9	103.2	273.2	552.6	622.0
115°	79.0	107.0	263.5	518.8	598.8
117.5°	86.7	111.6	255.5	486.9	566.8
120°	94.4	116.2	248.6	457.2	536.5
122.5°	101.9	121.6	242.7	433.4	503.6
125°	107.5	127.0	235.7	411.4	477.0
127.5°	112.8	132.7	230.3	391.2	450.9
130°	117.4	138.6	225.2	371.5	428.3
132.5°	121.7	144.1	220.3	351.3	405.9
135°	125.1	149.1	216.3	331.5	382.0
137.5°	129.0	153.4	212.6	311.5	358.0
140°	133.6	156.6	209.3	293.2	333.3
142.5°	138.2	159.8	207.8	276.2	309.5
145°	142.1	163.3	207.1	261.5	289.4
147.5°	147.0	166.1	206.0	248.8	270.5
150°	152.0	169.0	205.0	240.3	255.5
152.5°	156.9	171.8	203.2	233.8	245.3
155°	161.5	174.4	201.1	227.4	236.4
157.5°	165.4	176.5	199.0	221.4	228.7
160°	169.3	178.6	196.9	215.4	221.2
162.5°	173.2	180.2	195.1	209.8	214.2
165°	176.0	181.3	192.6	204.3	207.5
167.5°	178.5	182.4	190.5	199.3	201.1
170°	180.9	182.9	188.7	194.8	195.4
172.5°	182.4	183.4	186.6	190.6	190.8
175°	183.4	183.6	185.2	187.5	187.0
177.5°	184.1	183.8	183.8	185.2	184.1
180°	183.8	183.8	183.8	183.8	183.8

TEST NUMBER: P998482

CATALOG NUMBER: SA2XXDIP-B485D330UB40-4F0-XX-W2A-D4

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	12.79	13.74	13.70	14.68	15.89	15.86	16.81	16.78	17.75	18.97
	3H	14.25	15.11	15.18	16.06	17.30	18.46	19.32	19.38	20.27	21.50
	4H	14.73	15.55	15.67	16.50	17.75	19.71	20.53	20.65	21.49	22.73
	6H	15.02	15.78	15.97	16.74	18.00	21.01	21.77	21.96	22.73	23.99
	8H	15.08	15.81	16.04	16.78	18.04	21.68	22.40	22.63	23.38	24.63
	12H	15.10	15.79	16.06	16.76	18.05	22.40	23.09	23.37	24.07	25.35
4H	2H	13.85	14.66	14.79	15.62	16.86	16.20	17.02	17.14	17.97	19.22
	3H	15.56	16.25	16.51	17.24	18.50	19.00	19.69	19.95	20.68	21.94
	4H	16.19	16.83	17.15	17.80	19.09	20.42	21.06	21.38	22.03	23.32
	6H	16.61	17.16	17.58	18.17	19.45	21.89	22.45	22.87	23.45	24.73
	8H	16.72	17.24	17.69	18.24	19.53	22.65	23.17	23.63	24.17	25.47
	12H	16.76	17.24	17.76	18.25	19.56	23.48	23.96	24.48	24.97	26.28
8H	4H	16.98	17.51	17.96	18.50	19.80	20.57	21.09	21.55	22.09	23.39
	6H	17.62	18.06	18.62	19.10	20.39	22.20	22.64	23.20	23.68	24.97
	8H	17.84	18.24	18.85	19.26	20.57	23.09	23.49	24.10	24.51	25.82
	12H	17.98	18.33	19.00	19.35	20.70	24.09	24.44	25.11	25.46	26.81
12H	4H	17.19	17.66	18.18	18.67	19.98	20.55	21.02	21.55	22.04	23.34
	6H	17.96	18.35	18.96	19.37	20.68	22.23	22.62	23.24	23.64	24.96
	8H	18.26	18.61	19.28	19.63	20.99	23.16	23.51	24.18	24.53	25.88