

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: P998491

Luminaire Tested: SA2XXDIP-B485D330UB50-4F0-XX-W2A-D4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998491
REPORT IS A COMBINATION OF REPORTS P984234 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B485D330UB50-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

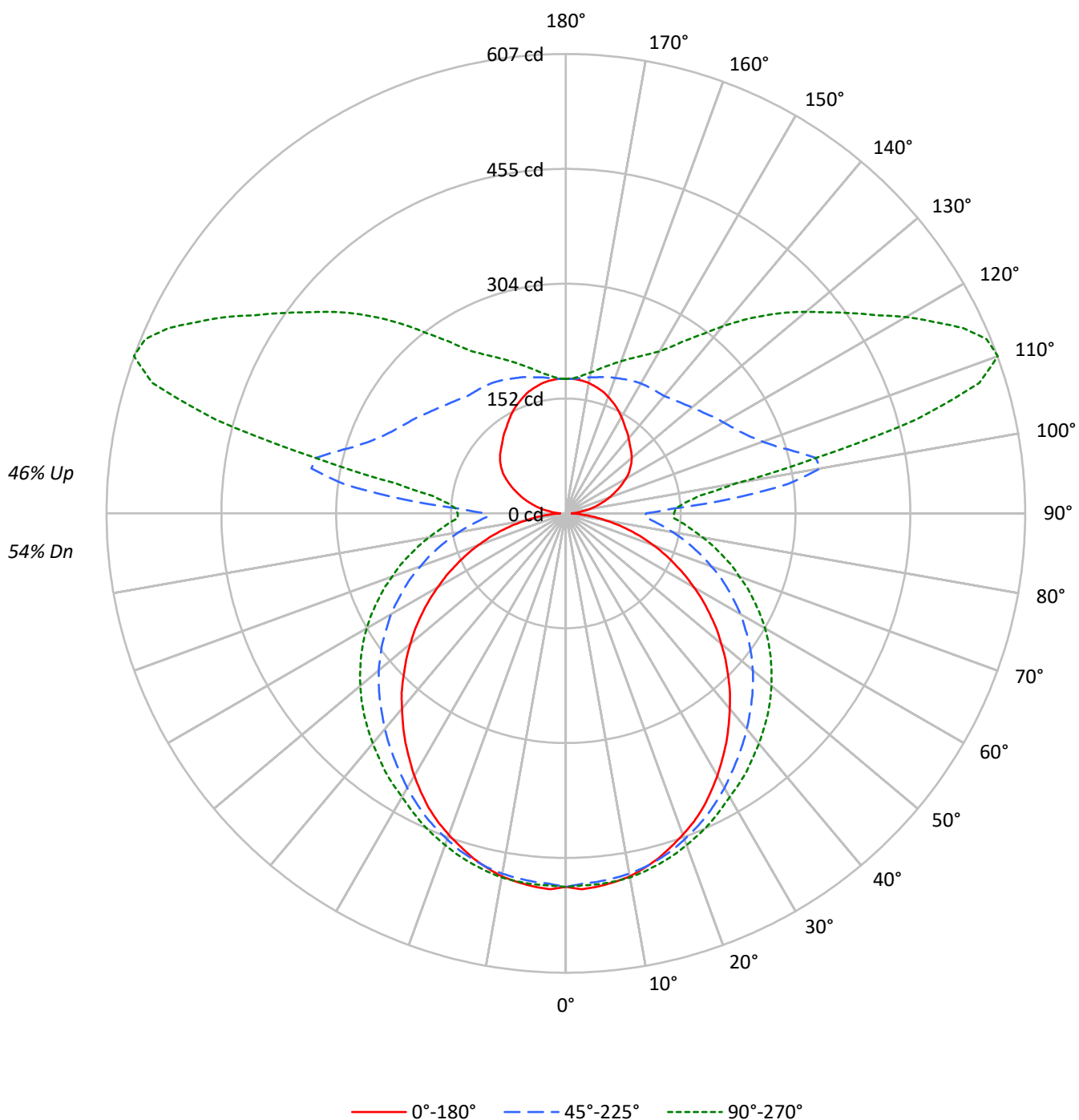
Lumens per Lamp: N/A
Luminaire Lumens: 3123.4 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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

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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	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°	7812	7812	7812
5°	7847	7478	7437
10°	7795	7220	7114
15°	7684	6952	6784
20°	7545	6669	6470
25°	7408	6401	6186
30°	7216	6127	5904
35°	7023	5863	5698
40°	6819	5635	5491
45°	6622	5428	5312
50°	6414	5238	5135
55°	6193	5035	4955
60°	5926	4824	4767
65°	5645	4580	4548
70°	5327	4319	4315
75°	4923	4060	4092
80°	4279	3789	3864
85°	3630	3534	3666

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6622 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	1.5
10°-20°	134.2	4.3
20°-30°	203.3	6.5
30°-40°	247.6	7.9
40°-50°	266.4	8.5
50°-60°	258.7	8.3
60°-70°	225.9	7.2
70°-80°	173.9	5.6
80°-90°	117.6	3.8
90°-100°	152.4	4.9
100°-110°	302.3	9.7
110°-120°	294.8	9.4
120°-130°	232.1	7.4
130°-140°	178.2	5.7
140°-150°	129.4	4.1
150°-160°	89.9	2.9
160°-170°	52.9	1.7
170°-180°	17.2	0.6
0°-30°	384.3	12.3
0°-40°	631.8	20.2
0°-60°	1156.9	37.0
0°-90°	1674.2	53.6
90°-120°	749.5	24.0
90°-150°	1289.2	41.3
90°-180°	1449.0	46.4
0°-180°	3123.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	495	493	488	493	492	47
15°	472	474	474	480	479	133
25°	429	434	441	449	451	197
35°	370	382	396	411	416	231
45°	303	323	348	370	377	234
55°	232	258	295	321	330	208
65°	159	194	236	265	275	158
75°	88	128	174	204	214	93
85°	26	70	116	146	156	27
90°	8	53	106	134	143	6
95°	18	69	216	160	157	17
105°	45	87	315	539	480	48
115°	76	104	255	502	579	75
125°	104	123	228	398	461	93
135°	121	144	209	321	369	94
145°	137	158	200	253	280	86
155°	156	169	194	220	229	72
165°	170	175	186	198	201	48
175°	177	178	179	181	181	17
180°	178	178	178	178	178	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	493.5	493.5	493.5	493.5	493.5
2.5°	497.1	494.9	489.9	493.5	492.1
5°	494.9	492.8	488.5	492.8	492.1
7.5°	491.3	489.9	486.3	491.3	490.6
10°	487.1	485.6	483.5	489.2	488.5
12.5°	479.9	480.6	479.2	484.9	484.2
15°	472.0	473.5	473.5	479.9	479.2
17.5°	462.0	464.9	467.0	473.5	473.5
20°	452.0	455.6	458.4	466.3	466.3
22.5°	441.3	445.6	449.9	457.7	459.2
25°	429.1	434.1	440.6	449.2	451.3
27.5°	414.8	422.7	429.8	440.6	442.0
30°	400.5	409.8	419.1	430.6	432.7
32.5°	384.8	395.5	407.0	420.5	424.8
35°	369.8	381.9	395.5	411.2	416.3
37.5°	353.3	366.9	384.1	401.2	406.2
40°	336.9	352.6	371.9	390.5	396.9
42.5°	321.1	336.9	359.7	380.5	386.9
45°	303.2	322.6	347.6	369.8	376.9
47.5°	286.1	306.8	335.4	358.3	366.2
50°	268.2	290.4	322.6	346.9	354.7
52.5°	251.0	274.6	309.0	334.0	342.6
55°	232.4	258.2	295.4	321.1	330.4
57.5°	214.6	243.2	280.4	308.3	317.6
60°	195.3	226.0	266.8	294.0	304.0
62.5°	178.1	210.3	251.0	280.4	289.7
65°	158.8	193.8	236.0	265.3	274.6
67.5°	141.6	178.1	221.0	250.3	260.3
70°	123.0	160.2	204.5	235.3	243.9
72.5°	105.9	144.5	189.5	219.6	230.3
75°	88.0	128.0	173.8	204.5	213.8
77.5°	70.8	112.3	158.8	189.5	199.5
80°	53.6	97.3	143.8	173.8	183.8
82.5°	39.3	82.2	129.5	159.5	168.8
85°	25.7	70.1	115.9	145.9	155.9
87.5°	15.7	58.6	104.4	133.7	143.0
90°	7.5	53.2	106.0	134.1	142.9
92.5°	11.5	60.6	140.6	140.2	145.3
95°	17.7	68.7	216.2	160.0	157.0
97.5°	22.8	74.6	295.6	205.2	177.6
100°	31.3	79.0	341.5	300.2	228.3
102.5°	38.5	83.3	338.3	434.1	338.7
105°	45.3	87.2	314.8	539.2	479.6
107.5°	53.5	91.1	292.7	573.8	572.7
110°	61.0	95.4	276.8	561.5	607.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	68.5	99.7	264.3	534.5	601.7
115°	76.4	103.5	254.8	501.8	579.1
117.5°	83.8	108.0	247.1	471.0	548.1
120°	91.3	112.3	240.4	442.0	518.9
122.5°	98.5	117.6	234.7	419.2	487.2
125°	103.9	122.8	228.0	397.9	461.3
127.5°	109.1	128.4	222.7	378.3	436.0
130°	113.5	134.0	217.7	359.3	414.3
132.5°	117.6	139.5	213.1	339.8	392.5
135°	121.0	144.3	209.2	320.6	369.4
137.5°	124.8	148.3	205.6	301.2	346.3
140°	129.2	151.4	202.4	283.6	322.5
142.5°	133.7	154.5	201.0	267.2	299.3
145°	137.4	158.0	200.3	253.0	280.0
147.5°	142.2	160.6	199.3	240.6	261.7
150°	147.0	163.4	198.3	232.4	247.1
152.5°	151.8	166.2	196.6	226.2	237.2
155°	156.2	168.7	194.5	220.0	228.7
157.5°	160.0	170.8	192.4	214.2	221.2
160°	163.7	172.8	190.4	208.3	214.0
162.5°	167.5	174.4	188.7	202.8	207.1
165°	170.2	175.4	186.3	197.6	200.7
167.5°	172.6	176.4	184.2	192.8	194.5
170°	175.0	176.9	182.5	188.4	189.0
172.5°	176.4	177.4	180.5	184.4	184.6
175°	177.4	177.6	179.1	181.4	180.8
177.5°	178.1	177.8	177.8	179.1	178.1
180°	177.8	177.8	177.8	177.8	177.8

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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	12.67	13.62	13.59	14.56	15.78	15.75	16.70	16.66	17.64	18.85
	3H	14.14	15.00	15.06	15.95	17.18	18.34	19.20	19.27	20.15	21.39
	4H	14.62	15.43	15.55	16.39	17.63	19.60	20.41	20.54	21.37	22.61
	6H	14.90	15.66	15.85	16.62	17.88	20.90	21.66	21.85	22.62	23.87
	8H	14.97	15.69	15.92	16.67	17.92	21.56	22.28	22.52	23.26	24.52
	12H	14.99	15.68	15.95	16.65	17.93	22.29	22.98	23.25	23.95	25.23
4H	2H	13.73	14.55	14.67	15.50	16.75	16.09	16.90	17.03	17.86	19.10
	3H	15.44	16.14	16.40	17.12	18.38	18.88	19.58	19.84	20.56	21.82
	4H	16.07	16.71	17.03	17.69	18.97	20.30	20.94	21.27	21.92	23.20
	6H	16.49	17.05	17.46	18.05	19.33	21.77	22.33	22.75	23.33	24.61
	8H	16.60	17.12	17.58	18.12	19.42	22.53	23.06	23.51	24.05	25.35
	12H	16.65	17.12	17.65	18.14	19.44	23.37	23.84	24.37	24.86	26.16
8H	4H	16.87	17.39	17.84	18.39	19.68	20.45	20.98	21.43	21.97	23.27
	6H	17.50	17.94	18.51	18.98	20.27	22.09	22.53	23.09	23.56	24.86
	8H	17.73	18.12	18.74	19.14	20.45	22.98	23.37	23.99	24.39	25.70
	12H	17.86	18.21	18.88	19.23	20.59	23.98	24.32	24.99	25.34	26.70
12H	4H	17.07	17.55	18.07	18.56	19.86	20.43	20.91	21.43	21.92	23.22
	6H	17.84	18.23	18.85	19.25	20.57	22.11	22.51	23.12	23.53	24.84
	8H	18.15	18.50	19.16	19.51	20.87	23.05	23.39	24.06	24.41	25.77