

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: P997858

Luminaire Tested: SA2XXDIP-B1005D330UB2750-4F0-XX-W2A-D_4000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997858
REPORT IS A COMBINATION OF REPORTS P983595 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB2750-4F0-XX-W2A-D_4000K
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

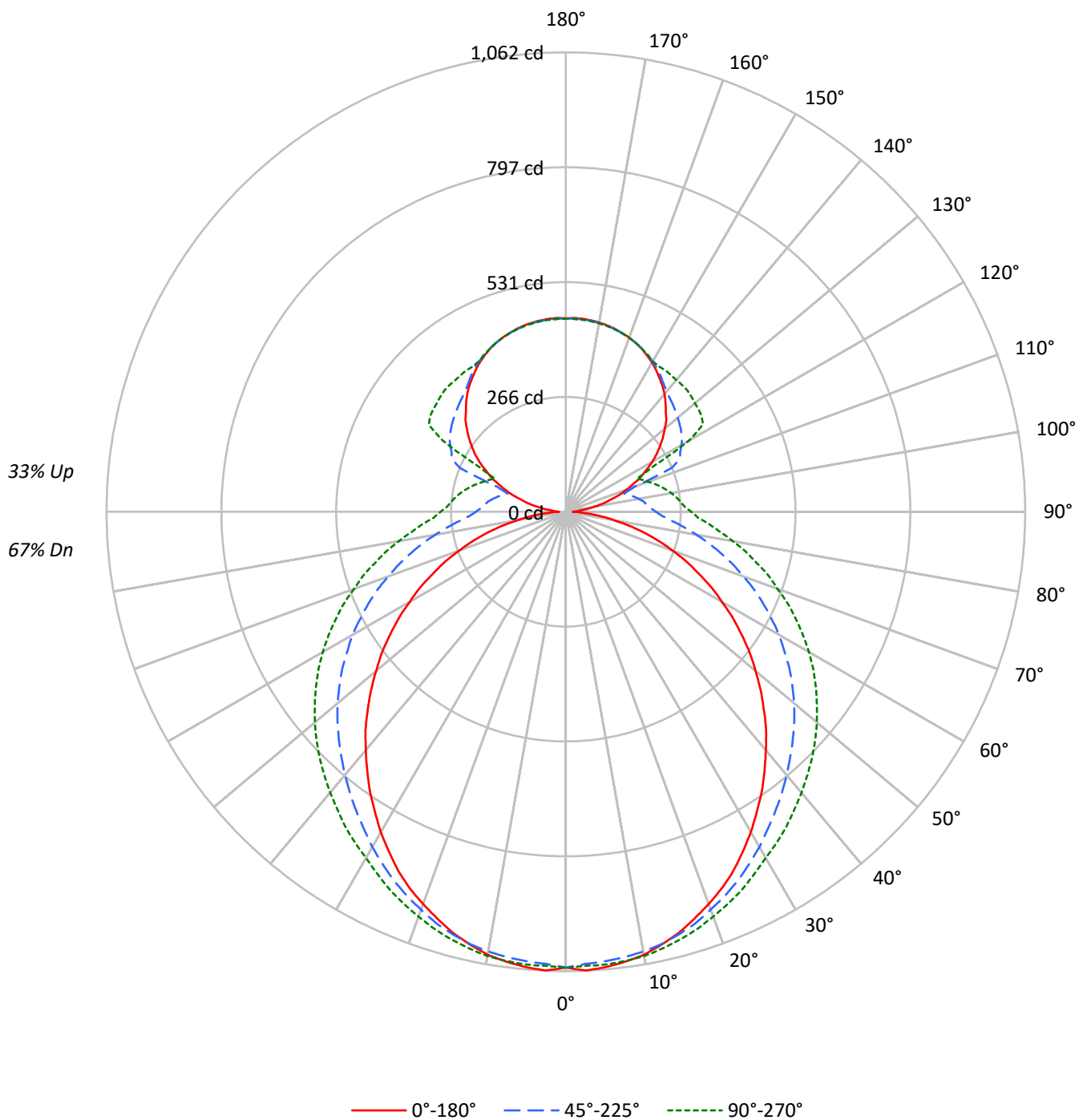
Lumens per Lamp: N/A
Luminaire Lumens: 5332.0 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 70.6
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	100	94	90	85	93	89	85	81	78	75	72	69	67	64	60	58	57
2	90	81	74	68	84	77	70	65	68	63	58	59	56	52	52	49	46
3	82	71	62	56	76	67	59	53	59	53	48	52	47	43	45	42	38
4	74	62	53	47	69	59	51	45	52	46	40	46	41	36	40	36	33
5	68	55	46	40	64	52	44	38	46	40	35	41	36	31	36	32	28
6	63	50	41	34	59	47	39	33	42	35	30	37	31	27	33	28	25
7	58	45	36	30	54	42	34	29	38	31	26	34	28	24	30	25	22
8	54	41	32	26	50	38	31	25	34	28	23	31	25	21	27	23	19
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16681	16681	16681
5°	16757	15969	15880
10°	16645	15416	15191
15°	16409	14845	14486
20°	16112	14243	13816
25°	15821	13668	13209
30°	15411	13083	12607
35°	14996	12520	12166
40°	14558	12033	11726
45°	14144	11591	11345
50°	13695	11183	10966
55°	13227	10751	10583
60°	12651	10300	10179
65°	12055	9782	9714
70°	11377	9225	9213
75°	10511	8668	8741
80°	9141	8090	8252
85°	7769	7544	7828

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14144 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	1.9
10°-20°	286.5	5.4
20°-30°	434.1	8.1
30°-40°	528.7	9.9
40°-50°	568.8	10.7
50°-60°	552.4	10.4
60°-70°	482.4	9.0
70°-80°	371.3	7.0
80°-90°	249.5	4.7
90°-100°	186.3	3.5
100°-110°	180.2	3.4
110°-120°	228.4	4.3
120°-130°	287.7	5.4
130°-140°	276.0	5.2
140°-150°	241.8	4.5
150°-160°	191.8	3.6
160°-170°	123.6	2.3
170°-180°	42.5	0.8
0°-30°	820.6	15.4
0°-40°	1349.2	25.3
0°-60°	2470.4	46.3
0°-90°	3573.5	67.0
90°-120°	594.9	11.2
90°-150°	1400.5	26.3
90°-180°	1758.0	33.0
0°-180°	5332.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1054	1054	1054	1054	1054	
5°	1057	1052	1043	1052	1051	100
15°	1008	1011	1011	1025	1023	284
25°	916	927	941	959	964	421
35°	790	816	845	878	889	494
45°	648	689	742	790	805	500
55°	496	551	631	686	706	444
65°	339	414	504	567	586	337
75°	188	273	371	437	457	199
85°	55	150	247	312	333	58
90°	16	108	208	271	290	12
95°	33	94	188	248	266	34
105°	106	160	151	208	226	114
115°	192	214	291	187	181	189
125°	266	270	325	369	383	238
135°	327	332	350	386	397	253
145°	377	377	383	394	400	236
155°	416	413	416	418	416	191
165°	438	436	437	439	437	124
175°	448	446	446	448	445	43
180°	447	447	447	447	447	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1053.8	1053.8	1053.8	1053.8	1053.8
2.5°	1061.5	1056.9	1046.2	1053.8	1050.8
5°	1056.9	1052.3	1043.1	1052.3	1050.8
7.5°	1049.2	1046.2	1038.5	1049.2	1047.7
10°	1040.1	1037.0	1032.4	1044.7	1043.1
12.5°	1024.8	1026.3	1023.3	1035.5	1034.0
15°	1008.0	1011.1	1011.1	1024.8	1023.3
17.5°	986.6	992.7	997.3	1011.1	1011.1
20°	965.2	972.9	979.0	995.8	995.8
22.5°	942.3	951.5	960.7	977.5	980.5
25°	916.4	927.1	940.8	959.1	963.7
27.5°	885.8	902.6	917.9	940.8	943.9
30°	855.3	875.1	895.0	919.4	924.0
32.5°	821.7	844.6	869.0	898.0	907.2
35°	789.6	815.6	844.6	878.2	888.9
37.5°	754.5	783.5	820.1	856.8	867.5
40°	719.3	752.9	794.2	833.9	847.6
42.5°	685.7	719.3	768.2	812.5	826.3
45°	647.6	688.8	742.3	789.6	804.9
47.5°	610.9	655.2	716.3	765.2	782.0
50°	572.7	620.1	688.8	740.7	757.5
52.5°	536.1	586.5	659.8	713.2	731.6
55°	496.4	551.3	630.8	685.7	705.6
57.5°	458.2	519.3	598.7	658.3	678.1
60°	416.9	482.6	569.7	627.7	649.1
62.5°	380.3	449.0	536.1	598.7	618.5
65°	339.1	413.9	504.0	566.6	586.5
67.5°	302.4	380.3	471.9	534.5	555.9
70°	262.7	342.1	436.8	502.5	520.8
72.5°	226.0	308.5	404.7	468.9	491.8
75°	187.9	273.4	371.1	436.8	456.7
77.5°	151.2	239.8	339.1	404.7	426.1
80°	114.5	207.7	307.0	371.1	392.5
82.5°	84.0	175.6	276.4	340.6	360.4
85°	55.0	149.7	247.4	311.6	332.9
87.5°	33.6	125.2	223.0	285.6	305.5
90°	15.6	107.8	208.1	270.8	289.7
92.5°	21.8	101.5	195.7	255.8	274.4
95°	33.2	94.3	188.2	247.9	265.9
97.5°	48.5	87.7	181.4	239.0	257.6
100°	67.9	80.1	171.1	230.2	247.7
102.5°	87.8	137.5	161.1	219.6	237.4
105°	105.9	159.9	151.0	208.1	226.2
107.5°	128.9	173.7	141.1	196.5	214.6
110°	149.4	186.8	168.1	184.7	202.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	170.1	200.3	265.1	174.6	192.4
115°	192.0	214.3	291.1	187.3	180.8
117.5°	209.6	228.3	297.9	297.5	228.0
120°	231.0	241.9	308.8	355.4	328.6
122.5°	249.1	255.8	318.7	362.0	376.0
125°	266.0	270.2	325.2	368.7	383.4
127.5°	282.8	285.8	331.9	373.2	387.4
130°	298.7	302.2	337.9	378.2	390.0
132.5°	314.8	317.4	343.9	382.0	393.9
135°	326.8	332.0	350.2	385.5	397.1
137.5°	341.1	344.9	355.9	388.1	397.8
140°	355.0	356.0	362.7	390.0	397.6
142.5°	366.6	367.4	371.6	392.5	398.5
145°	377.4	377.1	382.6	394.0	400.0
147.5°	388.1	387.1	392.6	395.7	399.0
150°	398.4	396.1	401.3	403.3	401.6
152.5°	407.1	404.6	409.4	411.3	409.1
155°	415.6	412.6	416.5	418.5	415.9
157.5°	422.3	419.8	422.7	424.9	422.3
160°	428.2	426.2	428.2	430.1	427.8
162.5°	433.3	431.4	433.0	435.3	432.4
165°	437.9	435.9	436.9	439.2	436.9
167.5°	441.4	439.5	440.5	442.7	439.8
170°	444.3	442.4	443.0	445.3	442.4
172.5°	446.3	444.3	445.0	447.2	444.3
175°	447.9	445.6	446.3	448.5	445.3
177.5°	448.5	446.3	446.6	448.9	446.0
180°	446.9	446.9	446.9	446.9	446.9

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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	16.40	17.51	17.18	18.32	19.32	19.47	20.58	20.25	21.40	22.40
	3H	17.87	18.88	18.67	19.71	20.73	22.07	23.08	22.87	23.91	24.94
	4H	18.36	19.32	19.17	20.15	21.19	23.34	24.30	24.15	25.13	26.17
	6H	18.65	19.54	19.48	20.38	21.44	24.65	25.54	25.47	26.38	27.43
	8H	18.72	19.57	19.55	20.43	21.48	25.31	26.16	26.15	27.02	28.08
	12H	18.74	19.56	19.58	20.41	21.49	26.05	26.86	26.89	27.71	28.80
4H	2H	17.47	18.43	18.29	19.26	20.30	19.82	20.79	20.64	21.62	22.66
	3H	19.20	20.01	20.02	20.88	21.93	22.63	23.45	23.46	24.32	25.37
	4H	19.83	20.58	20.67	21.44	22.52	24.06	24.81	24.90	25.67	26.76
	6H	20.26	20.92	21.11	21.80	22.89	25.54	26.20	26.40	27.09	28.17
	8H	20.37	20.99	21.23	21.87	22.97	26.30	26.93	27.16	27.81	28.91
	12H	20.43	20.99	21.31	21.89	23.00	27.15	27.71	28.03	28.61	29.72
8H	4H	20.64	21.26	21.50	22.14	23.24	24.22	24.84	25.08	25.73	26.83
	6H	21.28	21.81	22.17	22.73	23.83	25.86	26.39	26.75	27.31	28.41
	8H	21.51	21.98	22.40	22.89	24.01	26.76	27.23	27.65	28.14	29.26
	12H	21.65	22.07	22.55	22.98	24.14	27.76	28.18	28.66	29.09	30.25
12H	4H	20.85	21.41	21.73	22.31	23.42	24.21	24.78	25.09	25.68	26.78
	6H	21.62	22.09	22.51	23.00	24.12	25.89	26.36	26.79	27.28	28.39
	8H	21.93	22.35	22.84	23.26	24.43	26.83	27.25	27.73	28.16	29.32