

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: P997845

Luminaire Tested: SA2XXDIP-B1005D330UB27-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997845
REPORT IS A COMBINATION OF REPORTS P983582 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB27-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

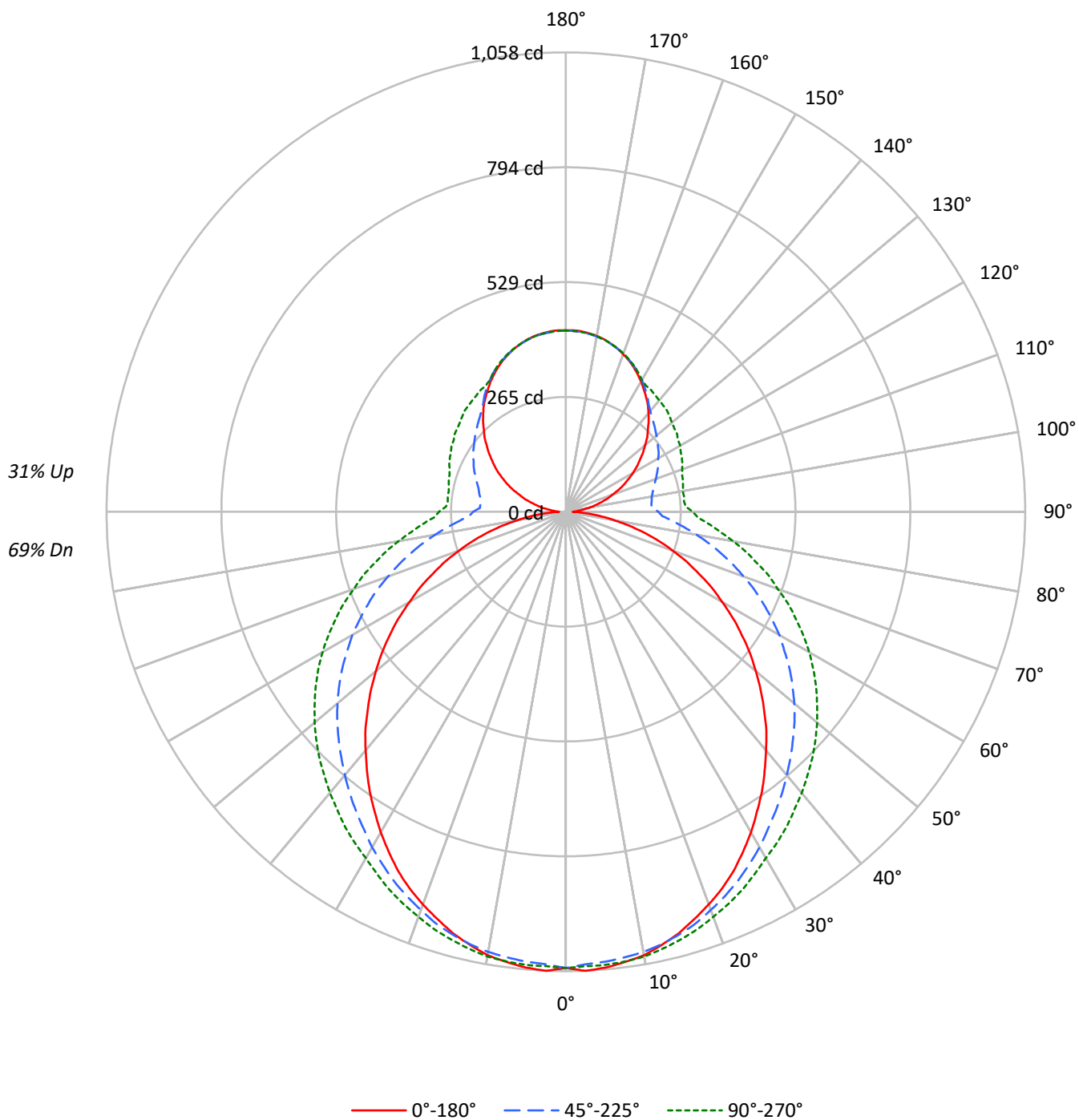
Lumens per Lamp: N/A
Luminaire Lumens: 5178.0 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73
1	100	95	90	85	94	89	85	81	79	76	73	70	68	65	62	60	58
2	90	81	74	68	85	77	70	65	68	63	59	60	56	53	53	50	47
3	82	71	63	56	77	67	59	53	60	54	49	53	48	44	46	43	39
4	75	62	54	47	70	59	51	45	53	46	41	47	41	37	41	37	33
5	68	55	46	40	64	53	44	38	47	40	35	42	36	32	37	32	29
6	63	50	41	34	59	47	39	33	42	35	30	38	32	28	33	29	25
7	58	45	36	30	55	43	35	29	38	31	27	34	29	24	30	26	22
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	28	23	20
9	50	37	29	24	47	35	28	23	32	26	21	29	23	19	26	21	18
10	47	34	26	21	44	33	25	21	29	23	19	27	21	18	24	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16632	16632	16632
5°	16706	15921	15831
10°	16595	15371	15146
15°	16360	14799	14442
20°	16066	14201	13775
25°	15773	13627	13169
30°	15364	13044	12569
35°	14950	12483	12129
40°	14515	11997	11692
45°	14100	11555	11311
50°	13655	11149	10935
55°	13187	10718	10551
60°	12614	10269	10149
65°	12016	9752	9684
70°	11342	9198	9185
75°	10478	8643	8715
80°	9117	8066	8226
85°	7741	7522	7807

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14100 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	1.9
10°-20°	285.7	5.5
20°-30°	432.8	8.4
30°-40°	527.1	10.2
40°-50°	567.1	11.0
50°-60°	550.7	10.6
60°-70°	481.0	9.3
70°-80°	370.2	7.1
80°-90°	249.1	4.8
90°-100°	196.9	3.8
100°-110°	207.1	4.0
110°-120°	223.0	4.3
120°-130°	230.8	4.5
130°-140°	226.8	4.4
140°-150°	206.7	4.0
150°-160°	170.7	3.3
160°-170°	113.2	2.2
170°-180°	39.6	0.8
0°-30°	818.1	15.8
0°-40°	1345.2	26.0
0°-60°	2463.0	47.6
0°-90°	3563.3	68.8
90°-120°	627.0	12.1
90°-150°	1291.3	24.9
90°-180°	1615.0	31.2
0°-180°	5178.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1054	1049	1040	1049	1048	100
15°	1005	1008	1008	1022	1020	283
25°	914	924	938	956	961	420
35°	787	813	842	876	886	492
45°	646	687	740	787	802	498
55°	495	550	629	684	704	443
65°	338	413	502	565	585	336
75°	187	273	370	436	455	198
85°	55	149	247	311	332	58
90°	16	108	213	274	292	12
95°	30	106	198	256	273	30
105°	83	129	208	262	279	89
115°	147	166	234	279	295	145
125°	208	211	259	299	312	187
135°	267	271	287	318	330	207
145°	322	325	327	336	342	202
155°	368	369	370	372	371	170
165°	401	400	400	403	401	113
175°	417	416	415	418	416	40
180°	418	418	418	418	418	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1058.3	1053.7	1043.1	1050.7	1047.6
5°	1053.7	1049.2	1040.0	1049.2	1047.6
7.5°	1046.1	1043.1	1035.4	1046.1	1044.6
10°	1037.0	1033.9	1029.4	1041.5	1040.0
12.5°	1021.7	1023.3	1020.2	1032.4	1030.9
15°	1005.0	1008.0	1008.0	1021.7	1020.2
17.5°	983.7	989.8	994.3	1008.0	1008.0
20°	962.4	970.0	976.1	992.8	992.8
22.5°	939.5	948.7	957.8	974.5	977.6
25°	913.6	924.3	938.0	956.3	960.8
27.5°	883.2	899.9	915.2	938.0	941.0
30°	852.7	872.5	892.3	916.7	921.2
32.5°	819.2	842.1	866.4	895.4	904.5
35°	787.2	813.1	842.1	875.6	886.2
37.5°	752.2	781.2	817.7	854.2	864.9
40°	717.2	750.7	791.8	831.4	845.1
42.5°	683.7	717.2	765.9	810.1	823.8
45°	645.6	686.7	740.0	787.2	802.5
47.5°	609.1	653.2	714.2	762.9	779.6
50°	571.0	618.2	686.7	738.5	755.3
52.5°	534.5	584.7	657.8	711.1	729.4
55°	494.9	549.7	628.9	683.7	703.5
57.5°	456.8	517.7	596.9	656.3	676.1
60°	415.7	481.2	568.0	625.8	647.2
62.5°	379.2	447.7	534.5	596.9	616.7
65°	338.0	412.7	502.5	564.9	584.7
67.5°	301.5	379.2	470.5	533.0	554.3
70°	261.9	341.1	435.5	501.0	519.2
72.5°	225.4	307.6	403.5	467.5	490.3
75°	187.3	272.6	370.0	435.5	455.3
77.5°	150.7	239.1	338.0	403.5	424.8
80°	114.2	207.1	306.1	370.0	391.3
82.5°	83.7	175.1	275.6	339.6	359.4
85°	54.8	149.2	246.7	310.6	332.0
87.5°	33.5	124.9	222.3	284.7	304.5
90°	15.6	108.1	213.3	273.5	292.2
92.5°	21.5	105.0	198.2	258.0	276.3
95°	30.5	105.6	197.7	255.6	273.1
97.5°	41.4	109.9	199.7	256.0	274.3
100°	55.5	114.6	200.9	257.2	273.7
102.5°	68.7	121.1	204.7	259.8	276.3
105°	83.4	128.6	208.5	262.5	279.3
107.5°	99.6	137.6	213.7	265.9	280.8
110°	113.6	146.1	220.8	269.5	285.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	130.5	157.0	226.7	274.3	290.4
115°	147.1	165.9	233.8	279.1	294.8
117.5°	162.2	177.1	239.3	284.0	298.1
120°	178.7	187.6	245.7	288.3	304.1
122.5°	193.9	198.9	253.4	293.5	306.5
125°	208.1	211.3	259.1	299.1	312.5
127.5°	223.7	226.0	265.7	302.4	315.1
130°	238.1	241.2	272.5	308.3	319.1
132.5°	254.3	256.4	279.6	312.8	324.0
135°	266.9	270.8	286.7	318.4	329.5
137.5°	282.4	285.6	293.9	322.6	331.7
140°	296.2	297.9	302.6	327.0	334.7
142.5°	310.3	312.0	313.0	331.7	337.9
145°	322.2	324.6	326.8	336.2	342.4
147.5°	334.2	337.3	338.7	340.9	344.1
150°	346.5	348.6	350.0	351.1	350.0
152.5°	357.4	359.5	361.3	362.7	361.3
155°	368.4	369.4	370.5	372.2	371.2
157.5°	377.9	378.6	379.3	381.7	380.0
160°	386.3	387.0	387.4	389.5	388.1
162.5°	394.1	394.1	394.4	396.9	395.1
165°	400.8	400.4	400.4	402.9	401.1
167.5°	406.8	405.7	405.7	408.2	406.4
170°	411.4	410.3	409.9	412.4	410.3
172.5°	414.5	413.5	413.1	415.6	413.5
175°	417.0	415.9	415.2	417.7	415.6
177.5°	418.4	417.3	416.6	418.8	416.6
180°	417.7	417.7	417.7	417.7	417.7

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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	16.52	17.66	17.28	18.45	19.42	19.60	20.73	20.36	21.53	22.50
	3H	18.00	19.03	18.77	19.84	20.83	22.20	23.23	22.98	24.04	25.04
	4H	18.48	19.46	19.28	20.28	21.29	23.46	24.45	24.26	25.26	26.27
	6H	18.78	19.69	19.59	20.51	21.54	24.77	25.69	25.58	26.51	27.53
	8H	18.85	19.72	19.66	20.56	21.59	25.44	26.31	26.26	27.16	28.18
	12H	18.87	19.71	19.69	20.54	21.60	26.18	27.01	27.00	27.85	28.90
4H	2H	17.60	18.58	18.39	19.39	20.40	19.95	20.93	20.75	21.75	22.76
	3H	19.32	20.16	20.13	21.01	22.03	22.76	23.60	23.57	24.45	25.47
	4H	19.96	20.73	20.78	21.57	22.62	24.19	24.96	25.01	25.80	26.86
	6H	20.39	21.06	21.22	21.93	22.99	25.67	26.35	26.51	27.22	28.27
	8H	20.50	21.14	21.34	22.00	23.07	26.44	27.07	27.28	27.94	29.01
	12H	20.56	21.14	21.42	22.02	23.10	27.28	27.86	28.14	28.74	29.82
8H	4H	20.77	21.40	21.61	22.27	23.34	24.36	24.99	25.20	25.86	26.93
	6H	21.41	21.95	22.28	22.86	23.93	26.00	26.53	26.87	27.44	28.51
	8H	21.64	22.12	22.52	23.02	24.11	26.89	27.37	27.77	28.27	29.36
	12H	21.79	22.21	22.67	23.11	24.24	27.90	28.33	28.78	29.22	30.36
12H	4H	20.98	21.56	21.84	22.44	23.52	24.34	24.92	25.21	25.81	26.88
	6H	21.75	22.23	22.63	23.13	24.22	26.02	26.51	26.90	27.41	28.49
	8H	22.07	22.50	22.95	23.39	24.53	26.97	27.40	27.85	28.29	29.43