

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: P997869

Luminaire Tested: SA2XXDIP-B1005D330UB30-4F0-XX-W2A-D1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997869
REPORT IS A COMBINATION OF REPORTS P983606 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB30-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

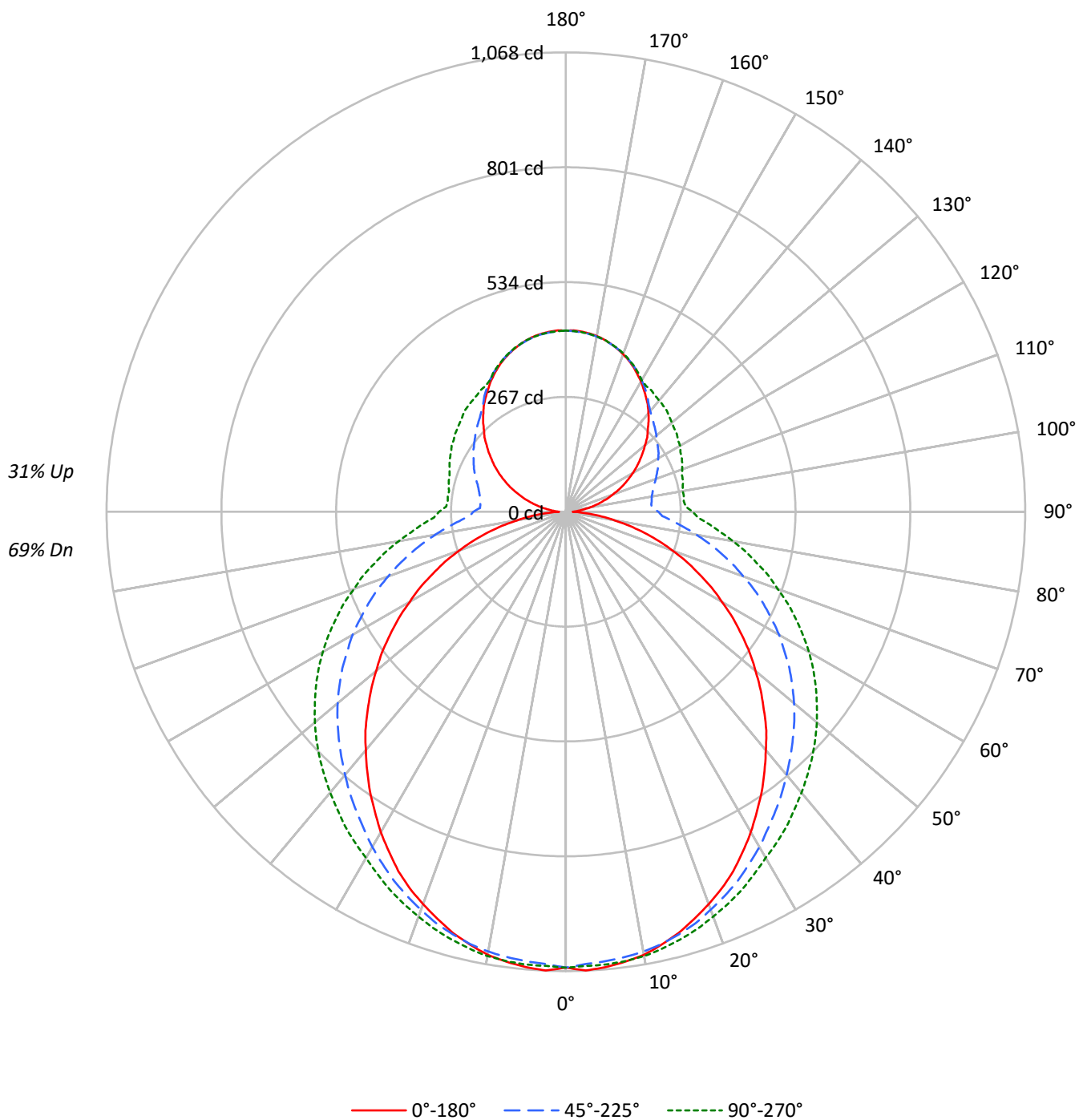
Lumens per Lamp: N/A
Luminaire Lumens: 5223.0 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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°	16776	16776	16776
5°	16852	16061	15970
10°	16739	15504	15278
15°	16503	14928	14568
20°	16206	14325	13895
25°	15911	13746	13284
30°	15499	13158	12680
35°	15081	12591	12236
40°	14643	12101	11794
45°	14224	11657	11410
50°	13774	11247	11030
55°	13302	10812	10643
60°	12723	10358	10237
65°	12122	9838	9768
70°	11442	9278	9266
75°	10567	8720	8791
80°	9197	8135	8300
85°	7811	7586	7873

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14224 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.5	1.9
10°-20°	288.2	5.5
20°-30°	436.6	8.4
30°-40°	531.7	10.2
40°-50°	572.0	11.0
50°-60°	555.5	10.6
60°-70°	485.2	9.3
70°-80°	373.4	7.1
80°-90°	251.3	4.8
90°-100°	198.6	3.8
100°-110°	208.8	4.0
110°-120°	224.9	4.3
120°-130°	232.8	4.5
130°-140°	228.7	4.4
140°-150°	208.5	4.0
150°-160°	172.1	3.3
160°-170°	114.2	2.2
170°-180°	39.9	0.8
0°-30°	825.2	15.8
0°-40°	1356.9	26.0
0°-60°	2484.5	47.6
0°-90°	3594.4	68.8
90°-120°	632.4	12.1
90°-150°	1302.4	24.9
90°-180°	1629.0	31.2
0°-180°	5223.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1063	1058	1049	1058	1057	101
15°	1014	1017	1017	1031	1029	286
25°	922	932	946	965	969	424
35°	794	820	849	883	894	496
45°	651	693	746	794	810	503
55°	499	554	634	690	710	447
65°	341	416	507	570	590	339
75°	189	275	373	439	459	200
85°	55	150	249	313	335	58
90°	16	109	215	276	295	12
95°	31	106	199	258	275	30
105°	84	130	210	265	282	89
115°	148	167	236	282	297	146
125°	210	213	261	302	315	188
135°	269	273	289	321	332	209
145°	325	327	330	339	345	203
155°	372	373	374	375	374	171
165°	404	404	404	406	405	114
175°	421	420	419	421	419	40
180°	421	421	421	421	421	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1059.8	1059.8	1059.8	1059.8	1059.8
2.5°	1067.5	1062.9	1052.2	1059.8	1056.8
5°	1062.9	1058.3	1049.1	1058.3	1056.8
7.5°	1055.2	1052.2	1044.5	1055.2	1053.7
10°	1046.0	1042.9	1038.3	1050.6	1049.1
12.5°	1030.7	1032.2	1029.1	1041.4	1039.9
15°	1013.8	1016.8	1016.8	1030.7	1029.1
17.5°	992.3	998.4	1003.0	1016.8	1016.8
20°	970.8	978.4	984.6	1001.5	1001.5
22.5°	947.7	956.9	966.1	983.0	986.1
25°	921.6	932.4	946.2	964.6	969.2
27.5°	890.9	907.8	923.1	946.2	949.3
30°	860.2	880.1	900.1	924.7	929.3
32.5°	826.4	849.4	874.0	903.2	912.4
35°	794.1	820.2	849.4	883.2	894.0
37.5°	758.8	788.0	824.8	861.7	872.5
40°	723.5	757.3	798.7	838.7	852.5
42.5°	689.7	723.5	772.6	817.2	831.0
45°	651.3	692.7	746.5	794.1	809.5
47.5°	614.4	658.9	720.4	769.5	786.4
50°	576.0	623.6	692.7	745.0	761.9
52.5°	539.1	589.8	663.6	717.3	735.7
55°	499.2	554.5	634.4	689.7	709.6
57.5°	460.8	522.2	602.1	662.0	682.0
60°	419.3	485.4	572.9	631.3	652.8
62.5°	382.5	451.6	539.1	602.1	622.1
65°	341.0	416.3	506.9	569.9	589.8
67.5°	304.1	382.5	474.6	537.6	559.1
70°	264.2	344.1	439.3	505.3	523.8
72.5°	227.3	310.3	407.0	471.6	494.6
75°	188.9	274.9	373.3	439.3	459.3
77.5°	152.1	241.2	341.0	407.0	428.5
80°	115.2	208.9	308.7	373.3	394.8
82.5°	84.5	176.6	278.0	342.5	362.5
85°	55.3	150.5	248.8	313.3	334.8
87.5°	33.8	126.0	224.3	287.2	307.2
90°	15.8	109.0	215.2	275.9	294.7
92.5°	21.6	105.9	199.9	260.2	278.7
95°	30.8	106.5	199.4	257.8	275.4
97.5°	41.7	110.9	201.5	258.3	276.8
100°	55.9	115.6	202.7	259.5	276.0
102.5°	69.3	122.1	206.4	262.1	278.6
105°	84.1	129.7	210.3	264.8	281.7
107.5°	100.5	138.7	215.5	268.2	283.3
110°	114.5	147.5	222.7	271.9	287.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	131.6	158.3	228.7	276.7	292.9
115°	148.3	167.3	235.8	281.5	297.3
117.5°	163.5	178.7	241.4	286.4	300.6
120°	180.2	189.3	247.8	290.8	306.7
122.5°	195.5	200.6	255.7	296.0	309.2
125°	210.0	213.2	261.2	301.7	315.1
127.5°	225.6	228.0	268.0	305.0	317.7
130°	240.2	243.2	274.8	311.0	321.8
132.5°	256.6	258.5	282.0	315.5	326.7
135°	269.2	273.1	289.2	321.2	332.3
137.5°	284.8	288.0	296.4	325.3	334.7
140°	298.7	300.4	305.3	329.8	337.7
142.5°	312.9	314.6	315.7	334.4	340.7
145°	324.9	327.4	329.6	339.1	345.4
147.5°	337.0	340.2	341.6	343.9	347.0
150°	349.5	351.6	353.0	354.1	353.0
152.5°	360.5	362.6	364.4	365.8	364.4
155°	371.5	372.6	373.6	375.4	374.3
157.5°	381.1	381.8	382.5	385.0	383.2
160°	389.6	390.3	390.7	392.8	391.4
162.5°	397.5	397.5	397.8	400.3	398.5
165°	404.2	403.9	403.9	406.3	404.6
167.5°	410.3	409.2	409.2	411.7	409.9
170°	414.9	413.8	413.5	415.9	413.8
172.5°	418.1	417.0	416.7	419.1	417.0
175°	420.6	419.5	418.8	421.3	419.1
177.5°	422.0	420.9	420.2	422.3	420.2
180°	421.3	421.3	421.3	421.3	421.3

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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	16.55	17.69	17.31	18.48	19.45	19.63	20.76	20.39	21.56	22.53
	3H	18.03	19.06	18.80	19.87	20.86	22.23	23.26	23.01	24.07	25.07
	4H	18.51	19.49	19.31	20.31	21.32	23.49	24.48	24.29	25.29	26.30
	6H	18.81	19.72	19.62	20.54	21.57	24.80	25.72	25.61	26.54	27.56
	8H	18.88	19.75	19.69	20.59	21.62	25.47	26.34	26.29	27.19	28.21
	12H	18.90	19.74	19.73	20.57	21.63	26.21	27.04	27.03	27.88	28.93
4H	2H	17.63	18.61	18.42	19.42	20.43	19.98	20.96	20.78	21.78	22.79
	3H	19.36	20.19	20.16	21.04	22.06	22.79	23.63	23.60	24.48	25.50
	4H	19.99	20.76	20.81	21.60	22.65	24.22	24.99	25.04	25.83	26.89
	6H	20.42	21.09	21.26	21.96	23.02	25.70	26.38	26.54	27.25	28.30
	8H	20.53	21.17	21.37	22.03	23.10	26.47	27.10	27.31	27.97	29.04
	12H	20.59	21.17	21.45	22.05	23.13	27.31	27.89	28.17	28.77	29.85
8H	4H	20.80	21.43	21.64	22.30	23.37	24.39	25.02	25.23	25.89	26.96
	6H	21.44	21.98	22.31	22.89	23.96	26.03	26.56	26.90	27.47	28.54
	8H	21.67	22.15	22.55	23.05	24.14	26.92	27.40	27.80	28.30	29.39
	12H	21.82	22.25	22.70	23.14	24.27	27.93	28.36	28.81	29.25	30.39
12H	4H	21.01	21.59	21.87	22.47	23.55	24.37	24.95	25.24	25.84	26.91
	6H	21.78	22.26	22.66	23.16	24.25	26.05	26.54	26.93	27.44	28.52
	8H	22.10	22.53	22.98	23.42	24.56	27.00	27.43	27.88	28.32	29.46