

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: P998851

Luminaire Tested: SA2XXDIP-B675D530UB50-4F0-XX-W2A-F4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998851
REPORT IS A COMBINATION OF REPORTS P984597 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D530UB50-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

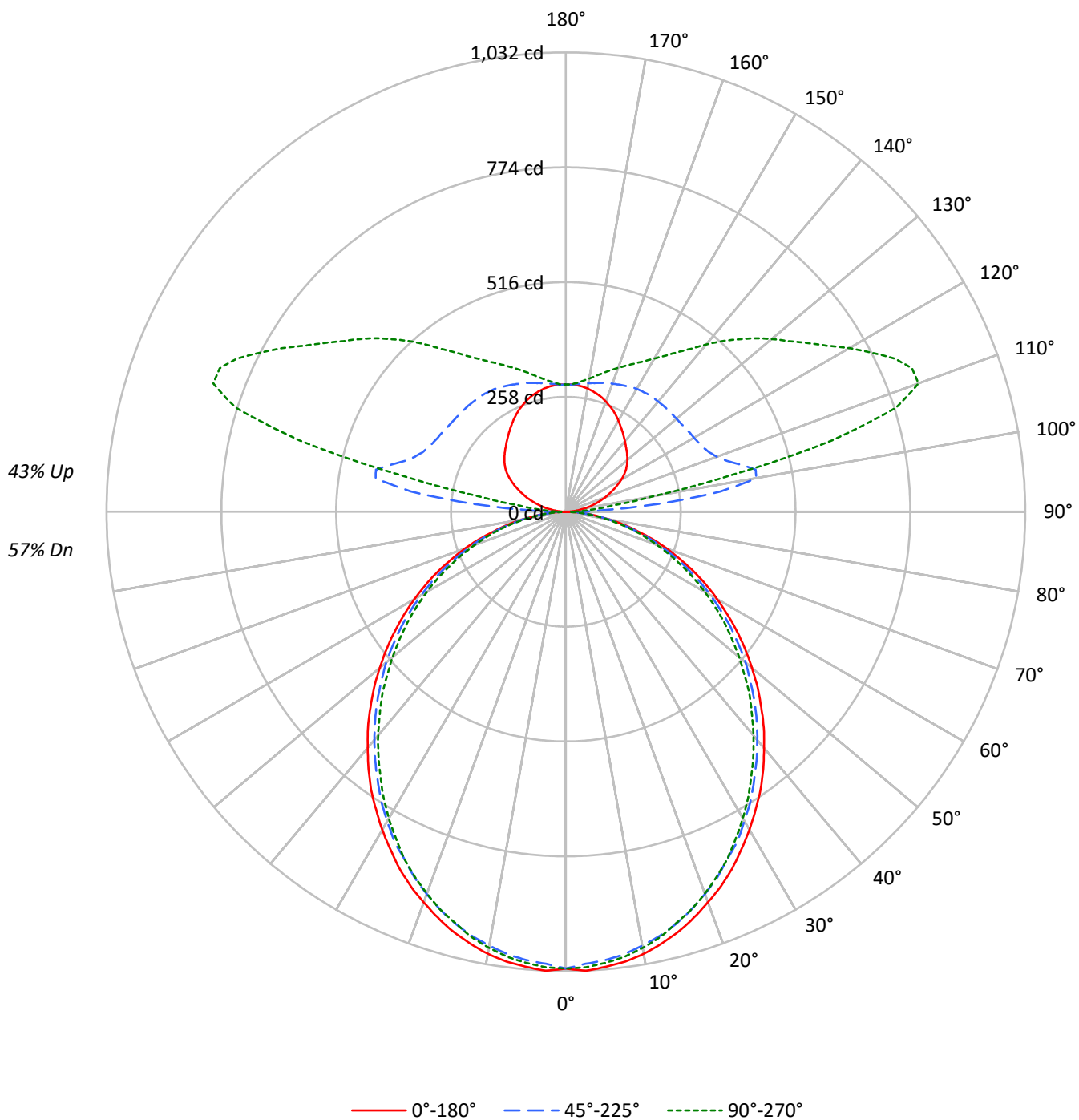
Lumens per Lamp: N/A
Luminaire Lumens: 4605.3 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 51.3
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62
1	99	95	91	87	92	88	85	82	76	74	72	65	63	62	55	54	53
2	90	83	77	71	84	77	72	67	67	63	59	57	54	52	48	46	44
3	83	73	65	60	76	68	62	56	59	54	50	51	47	44	43	40	38
4	76	65	57	50	70	60	53	48	53	47	43	45	41	37	38	35	33
5	69	58	49	43	64	54	47	41	47	41	37	41	36	33	35	31	28
6	64	52	43	38	59	48	41	36	42	37	32	37	32	29	31	28	25
7	59	47	39	33	55	44	37	31	38	33	28	33	29	25	29	25	22
8	55	42	35	29	51	40	33	28	35	29	25	31	26	23	26	23	20
9	51	39	31	26	48	37	30	25	32	27	23	28	24	20	24	21	18
10	48	36	28	23	45	34	27	22	30	24	20	26	22	18	23	19	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16246	16246	16246
5°	16272	15485	15375
10°	16139	14779	14486
15°	15903	14068	13550
20°	15583	13295	12665
25°	15265	12487	11780
30°	14865	11728	10853
35°	14487	10926	9941
40°	14020	10138	9078
45°	13556	9353	8234
50°	13050	8556	7357
55°	12516	7703	6527
60°	11916	6780	5664
65°	11262	5842	4757
70°	10428	4815	3841
75°	9275	3712	2965
80°	7880	2522	1909
85°	5721	1174	811

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13556 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	2.1
10°-20°	271.8	5.9
20°-30°	399.4	8.7
30°-40°	463.9	10.1
40°-50°	463.3	10.1
50°-60°	404.0	8.8
60°-70°	298.6	6.5
70°-80°	169.0	3.7
80°-90°	46.4	1.0
90°-100°	115.8	2.5
100°-110°	391.6	8.5
110°-120°	411.7	8.9
120°-130°	338.5	7.4
130°-140°	272.0	5.9
140°-150°	205.5	4.5
150°-160°	144.5	3.1
160°-170°	85.1	1.8
170°-180°	27.7	0.6
0°-30°	767.7	16.7
0°-40°	1231.6	26.7
0°-60°	2098.9	45.6
0°-90°	2612.8	56.7
90°-120°	919.2	20.0
90°-150°	1735.2	37.7
90°-180°	1992.0	43.3
0°-180°	4605.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1026	1022	1012	1019	1017	97
15°	977	971	958	962	957	275
25°	884	876	860	862	860	407
35°	763	753	737	731	726	476
45°	621	614	599	588	584	479
55°	470	464	452	440	435	420
65°	317	311	301	292	287	313
75°	166	164	159	153	155	177
85°	40	40	38	36	34	45
90°	0	7	19	18	18	4
95°	19	47	215	81	63	20
105°	67	101	407	728	619	71
115°	118	149	341	703	815	117
125°	165	195	328	570	661	147
135°	193	231	324	479	548	149
145°	221	254	322	400	438	139
155°	251	271	313	354	368	116
165°	274	282	300	318	323	77
175°	285	286	288	292	291	27
180°	286	286	286	286	286	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1026.3	1026.3	1026.3	1026.3	1026.3
2.5°	1032.2	1027.3	1016.4	1026.3	1024.3
5°	1026.3	1022.3	1011.5	1019.4	1017.4
7.5°	1019.4	1013.4	1002.6	1010.5	1008.5
10°	1008.5	1001.6	989.8	997.7	994.7
12.5°	993.7	987.8	975.9	980.9	978.9
15°	976.9	971.0	958.2	962.1	957.2
17.5°	956.2	950.3	937.5	942.4	937.5
20°	933.5	927.6	913.8	916.7	912.8
22.5°	910.8	901.9	889.1	889.1	887.1
25°	884.2	876.3	859.5	861.5	859.5
27.5°	854.6	847.7	834.8	831.9	826.9
30°	825.0	817.1	802.3	799.3	795.4
32.5°	793.4	787.5	771.7	765.8	761.8
35°	762.8	752.9	737.1	731.2	726.3
37.5°	728.3	719.4	703.6	696.7	691.7
40°	692.7	684.8	669.1	660.2	656.2
42.5°	658.2	650.3	634.5	624.6	618.7
45°	620.7	613.8	599.0	588.1	584.2
47.5°	584.2	577.3	561.5	550.6	544.7
50°	545.7	540.8	527.0	513.1	508.2
52.5°	508.2	501.3	488.5	477.6	470.7
55°	469.7	463.8	452.0	440.1	435.2
57.5°	431.2	426.3	413.5	401.6	397.7
60°	392.7	388.8	375.0	364.1	361.2
62.5°	355.2	348.3	338.5	328.6	324.7
65°	316.8	310.8	301.0	292.1	287.2
67.5°	277.3	272.4	263.5	256.6	252.6
70°	240.8	236.8	228.0	221.0	217.1
72.5°	203.3	199.3	194.4	187.5	184.5
75°	165.8	163.8	158.9	153.0	154.9
77.5°	132.2	128.3	126.3	123.3	120.4
80°	98.7	97.7	95.7	92.8	90.8
82.5°	67.1	67.1	66.1	62.2	62.2
85°	40.5	39.5	38.5	35.5	34.5
87.5°	17.8	15.8	13.8	10.9	9.9
90°	0.5	7.4	18.7	17.8	18.1
92.5°	8.2	26.1	84.6	39.0	33.5
95°	19.2	47.3	215.4	81.4	62.7
97.5°	28.6	62.4	351.2	163.2	105.0
100°	42.3	76.4	434.2	325.0	196.7
102.5°	55.0	89.0	436.9	549.6	383.6
105°	67.0	101.1	407.2	727.9	619.4
107.5°	80.2	113.2	379.8	792.5	778.2
110°	93.4	125.6	361.1	782.0	843.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.5	137.4	349.0	746.6	841.9
115°	118.2	149.2	340.7	703.2	815.0
117.5°	131.3	161.0	336.3	661.7	774.3
120°	143.4	172.6	332.5	624.6	735.3
122.5°	155.0	184.4	330.3	595.8	694.7
125°	164.9	195.1	327.5	569.6	661.1
127.5°	173.1	205.2	325.9	547.4	629.8
130°	180.3	214.3	324.8	524.8	604.0
132.5°	186.9	223.1	324.2	501.4	577.1
135°	193.4	230.8	323.7	478.7	547.9
137.5°	199.5	237.4	323.7	455.6	519.9
140°	206.6	243.4	323.1	435.3	490.8
142.5°	213.8	248.4	323.1	415.8	461.6
145°	220.9	253.9	322.0	399.8	437.5
147.5°	228.6	258.3	320.4	385.8	416.0
150°	236.3	262.6	318.8	373.8	397.3
152.5°	244.0	267.1	316.0	363.5	381.4
155°	251.2	271.2	312.7	353.6	367.7
157.5°	257.2	274.5	309.4	344.3	355.6
160°	263.2	277.8	306.1	335.0	344.0
162.5°	269.3	280.3	303.4	326.2	333.0
165°	273.7	282.0	299.5	317.7	322.6
167.5°	277.5	283.6	296.2	310.0	312.7
170°	281.4	284.4	293.5	302.8	303.9
172.5°	283.6	285.2	290.2	296.5	296.8
175°	285.2	285.5	288.0	291.6	290.7
177.5°	286.3	285.8	285.8	288.0	286.3
180°	285.8	285.8	285.8	285.8	285.8

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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	15.52	16.45	16.42	17.36	18.54	16.30	17.23	17.20	18.14	19.32
	3H	16.86	17.69	17.77	18.62	19.82	17.93	18.76	18.84	19.69	20.89
	4H	17.27	18.06	18.20	18.99	20.19	18.53	19.31	19.45	20.24	21.45
	6H	17.49	18.22	18.43	19.16	20.37	18.94	19.66	19.87	20.60	21.82
	8H	17.53	18.21	18.47	19.17	20.39	19.05	19.73	19.99	20.69	21.91
	12H	17.52	18.18	18.47	19.12	20.37	19.09	19.75	20.04	20.70	21.94
4H	2H	16.00	16.78	16.93	17.71	18.92	16.64	17.43	17.57	18.36	19.56
	3H	17.52	18.18	18.46	19.14	20.36	18.43	19.08	19.37	20.04	21.26
	4H	18.03	18.63	18.98	19.58	20.83	19.11	19.71	20.06	20.67	21.91
	6H	18.34	18.85	19.30	19.83	21.08	19.61	20.13	20.57	21.11	22.35
	8H	18.39	18.88	19.36	19.85	21.11	19.76	20.24	20.72	21.21	22.47
	12H	18.40	18.83	19.38	19.82	21.09	19.82	20.26	20.80	21.25	22.51
8H	4H	18.21	18.69	19.17	19.67	20.93	19.20	19.68	20.17	20.66	21.92
	6H	18.60	19.00	19.59	20.01	21.27	19.77	20.17	20.76	21.19	22.45
	8H	18.70	19.05	19.70	20.06	21.33	19.96	20.32	20.96	21.32	22.60
	12H	18.73	19.04	19.74	20.04	21.36	20.06	20.37	21.07	21.37	22.69
12H	4H	18.20	18.63	19.18	19.62	20.89	19.17	19.60	20.15	20.60	21.86
	6H	18.61	18.97	19.61	19.97	21.25	19.77	20.12	20.77	21.12	22.40
	8H	18.73	19.04	19.73	20.04	21.36	19.97	20.28	20.97	21.27	22.60