

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: P998740

Luminaire Tested: SA2XXDIP-B675D330UB27-4F0-XX-W2A-F4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998740
REPORT IS A COMBINATION OF REPORTS P984486 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB27-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

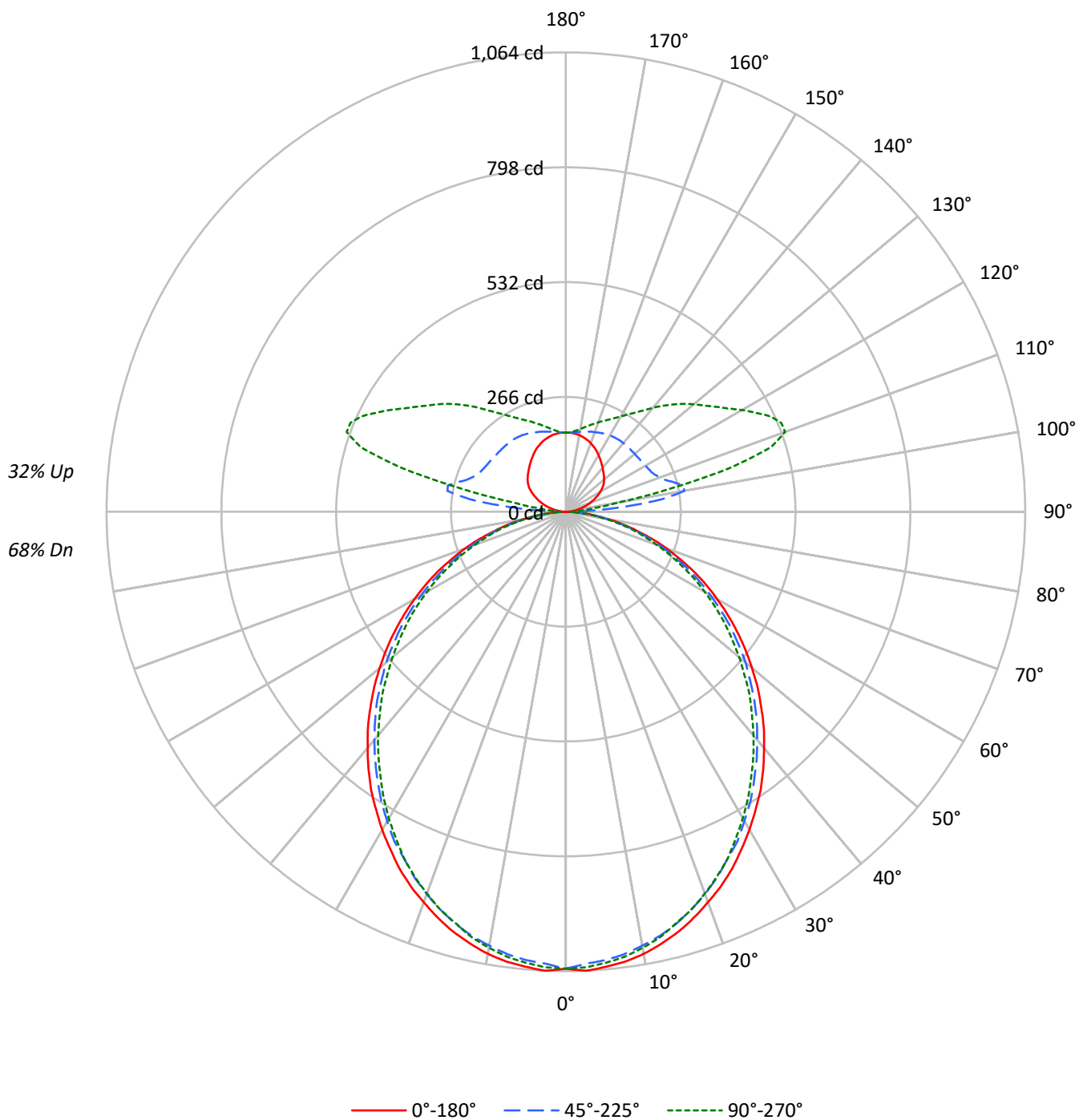
Lumens per Lamp: N/A
Luminaire Lumens: 3970.4 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 45.2
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	102	97	93	90	96	92	88	85	82	79	77	73	71	69	64	63	61
2	93	85	79	73	87	80	75	70	72	67	64	64	60	57	56	54	52
3	85	75	67	61	79	71	64	59	63	58	54	56	52	49	50	47	44
4	77	66	58	52	73	63	56	50	56	50	46	50	46	42	45	41	38
5	71	59	51	45	67	56	49	43	51	44	40	45	40	36	40	36	33
6	66	53	45	39	62	51	43	37	46	39	35	41	36	32	37	32	29
7	61	48	40	34	57	46	38	33	41	35	31	37	32	28	33	29	26
8	57	44	36	30	53	42	34	29	38	32	27	34	29	25	31	27	23
9	53	40	32	27	50	38	31	26	35	29	25	32	26	23	28	24	21
10	49	37	30	25	47	35	28	24	32	26	22	29	24	21	26	22	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16749	16749	16749
5°	16776	15964	15853
10°	16640	15238	14936
15°	16396	14504	13971
20°	16067	13707	13057
25°	15738	12875	12146
30°	15326	12092	11188
35°	14937	11266	10249
40°	14455	10451	9361
45°	13978	9644	8489
50°	13454	8821	7586
55°	12905	7942	6730
60°	12287	6990	5840
65°	11610	6022	4904
70°	10749	4963	3959
75°	9560	3826	3057
80°	8119	2601	1968
85°	5890	1211	837

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13978 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	2.5
10°-20°	280.2	7.1
20°-30°	411.8	10.4
30°-40°	478.3	12.0
40°-50°	477.7	12.0
50°-60°	416.5	10.5
60°-70°	307.9	7.8
70°-80°	174.2	4.4
80°-90°	47.1	1.2
90°-100°	74.3	1.9
100°-110°	251.1	6.3
110°-120°	263.9	6.6
120°-130°	217.0	5.5
130°-140°	174.4	4.4
140°-150°	131.7	3.3
150°-160°	92.6	2.3
160°-170°	54.5	1.4
170°-180°	17.7	0.4
0°-30°	791.6	19.9
0°-40°	1269.8	32.0
0°-60°	2164.0	54.5
0°-90°	2693.2	67.8
90°-120°	589.2	14.8
90°-150°	1112.4	28.0
90°-180°	1277.0	32.2
0°-180°	3970.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1058	1058	1058	1058	1058	
5°	1058	1054	1043	1051	1049	100
15°	1007	1001	988	992	987	284
25°	912	904	886	888	886	419
35°	786	776	760	754	749	491
45°	640	633	618	606	602	494
55°	484	478	466	454	449	433
65°	327	320	310	301	296	323
75°	171	169	164	158	160	182
85°	42	41	40	37	36	46
90°	0	5	12	11	12	3
95°	12	30	138	52	40	13
105°	43	65	261	467	397	46
115°	76	96	218	451	522	75
125°	106	125	210	365	424	94
135°	124	148	208	307	351	96
145°	142	163	206	256	280	89
155°	161	174	200	227	236	74
165°	176	181	192	204	207	49
175°	183	183	185	187	186	17
180°	183	183	183	183	183	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1058.1	1058.1	1058.1	1058.1	1058.1
2.5°	1064.2	1059.1	1047.9	1058.1	1056.1
5°	1058.1	1054.0	1042.8	1051.0	1049.0
7.5°	1051.0	1044.9	1033.7	1041.8	1039.8
10°	1039.8	1032.7	1020.5	1028.6	1025.6
12.5°	1024.5	1018.4	1006.2	1011.3	1009.3
15°	1007.2	1001.1	987.9	992.0	986.9
17.5°	985.9	979.8	966.5	971.6	966.5
20°	962.5	956.4	942.1	945.2	941.1
22.5°	939.1	929.9	916.7	916.7	914.7
25°	911.6	903.5	886.2	888.2	886.2
27.5°	881.1	874.0	860.7	857.7	852.6
30°	850.6	842.4	827.2	824.1	820.0
32.5°	818.0	811.9	795.6	789.5	785.4
35°	786.5	776.3	760.0	753.9	748.8
37.5°	750.9	741.7	725.4	718.3	713.2
40°	714.2	706.1	689.8	680.6	676.6
42.5°	678.6	670.5	654.2	644.0	637.9
45°	640.0	632.8	617.6	606.4	602.3
47.5°	602.3	595.2	578.9	567.7	561.6
50°	562.6	557.5	543.3	529.1	524.0
52.5°	524.0	516.8	503.6	492.4	485.3
55°	484.3	478.2	466.0	453.8	448.7
57.5°	444.6	439.5	426.3	414.1	410.0
60°	404.9	400.9	386.6	375.4	372.4
62.5°	366.3	359.1	349.0	338.8	334.7
65°	326.6	320.5	310.3	301.2	296.1
67.5°	285.9	280.8	271.6	264.5	260.5
70°	248.2	244.2	235.0	227.9	223.8
72.5°	209.6	205.5	200.4	193.3	190.3
75°	170.9	168.9	163.8	157.7	159.7
77.5°	136.3	132.3	130.2	127.2	124.1
80°	101.7	100.7	98.7	95.6	93.6
82.5°	69.2	69.2	68.2	64.1	64.1
85°	41.7	40.7	39.7	36.6	35.6
87.5°	18.3	16.3	14.2	11.2	10.2
90°	0.4	4.8	12.0	11.4	11.6
92.5°	5.3	16.8	54.3	25.0	21.5
95°	12.3	30.3	138.1	52.2	40.2
97.5°	18.3	40.0	225.1	104.6	67.3
100°	27.1	49.0	278.3	208.4	126.1
102.5°	35.2	57.0	280.1	352.3	245.9
105°	43.0	64.8	261.1	466.6	397.1
107.5°	51.4	72.6	243.4	508.0	498.9
110°	59.9	80.5	231.5	501.4	540.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	67.6	88.1	223.7	478.6	539.7
115°	75.7	95.6	218.4	450.8	522.5
117.5°	84.2	103.2	215.6	424.2	496.4
120°	92.0	110.6	213.1	400.4	471.4
122.5°	99.4	118.2	211.7	381.9	445.3
125°	105.7	125.0	210.0	365.2	423.8
127.5°	111.0	131.6	208.9	350.9	403.7
130°	115.6	137.4	208.2	336.5	387.2
132.5°	119.8	143.0	207.9	321.4	369.9
135°	124.0	148.0	207.5	306.8	351.3
137.5°	127.9	152.2	207.5	292.1	333.3
140°	132.5	156.1	207.2	279.0	314.6
142.5°	137.0	159.2	207.2	266.5	295.9
145°	141.6	162.8	206.5	256.3	280.4
147.5°	146.6	165.6	205.4	247.3	266.7
150°	151.5	168.4	204.3	239.6	254.7
152.5°	156.4	171.2	202.6	233.0	244.5
155°	161.0	173.8	200.5	226.8	235.7
157.5°	164.9	176.0	198.4	220.7	227.9
160°	168.8	178.1	196.2	214.8	220.5
162.5°	172.6	179.7	194.5	209.1	213.5
165°	175.5	180.8	192.0	203.6	206.8
167.5°	177.9	181.8	189.9	198.7	200.5
170°	180.4	182.3	188.1	194.2	194.8
172.5°	181.8	182.8	186.0	190.0	190.2
175°	182.8	183.0	184.6	186.9	186.4
177.5°	183.6	183.2	183.2	184.6	183.6
180°	183.2	183.2	183.2	183.2	183.2

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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	16.53	17.58	17.32	18.39	19.38	17.31	18.36	18.10	19.17	20.16
	3H	17.88	18.82	18.68	19.64	20.66	18.95	19.89	19.75	20.71	21.73
	4H	18.29	19.18	19.11	20.01	21.04	19.55	20.44	20.37	21.27	22.30
	6H	18.52	19.34	19.35	20.18	21.22	19.96	20.79	20.79	21.62	22.67
	8H	18.56	19.34	19.40	20.19	21.24	20.08	20.86	20.92	21.71	22.76
	12H	18.56	19.30	19.40	20.15	21.22	20.13	20.87	20.97	21.72	22.80
4H	2H	17.02	17.91	17.84	18.74	19.77	17.66	18.55	18.49	19.38	20.41
	3H	18.55	19.30	19.39	20.16	21.21	19.46	20.20	20.29	21.06	22.11
	4H	19.07	19.74	19.92	20.60	21.68	20.15	20.83	21.00	21.69	22.76
	6H	19.38	19.97	20.24	20.85	21.93	20.66	21.24	21.52	22.12	23.20
	8H	19.44	19.99	20.31	20.87	21.96	20.80	21.35	21.67	22.23	23.32
	12H	19.45	19.94	20.34	20.84	21.94	20.87	21.37	21.76	22.27	23.36
8H	4H	19.26	19.80	20.12	20.68	21.78	20.25	20.80	21.12	21.68	22.77
	6H	19.65	20.10	20.54	21.02	22.11	20.83	21.28	21.72	22.20	23.29
	8H	19.75	20.16	20.66	21.07	22.18	21.02	21.42	21.92	22.33	23.44
	12H	19.79	20.15	20.70	21.05	22.22	21.12	21.48	22.03	22.38	23.55
12H	4H	19.25	19.74	20.14	20.64	21.74	20.22	20.72	21.11	21.61	22.71
	6H	19.67	20.07	20.57	20.99	22.09	20.82	21.22	21.72	22.14	23.25
	8H	19.79	20.15	20.70	21.05	22.21	21.03	21.38	21.93	22.29	23.45