

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: P998787

Luminaire Tested: SA2XXDIP-B675D330UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998787
REPORT IS A COMBINATION OF REPORTS P984533 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB50-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

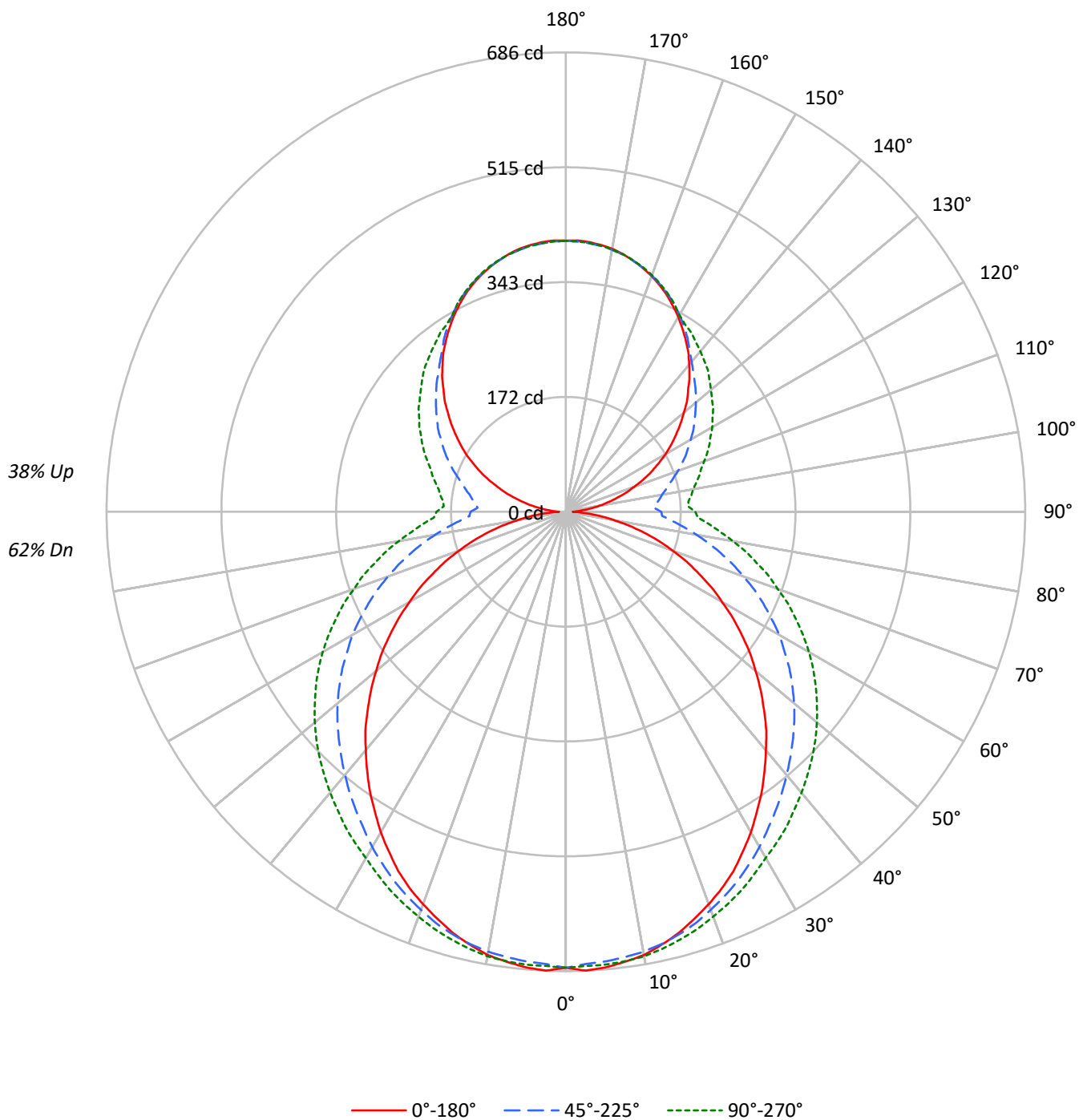
Lumens per Lamp: N/A
Luminaire Lumens: 3731.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	99	93	89	85	92	87	83	80	76	73	70	66	63	61	56	55	53
2	89	81	73	68	83	75	69	64	66	61	57	57	53	50	49	46	43
3	81	70	62	55	75	66	58	53	57	52	47	50	45	41	42	39	36
4	74	62	53	46	68	58	50	44	51	44	39	44	39	35	38	34	30
5	67	55	46	40	63	51	44	38	45	39	34	39	34	30	34	30	26
6	62	49	40	34	58	46	38	32	41	34	29	35	30	26	30	26	23
7	57	44	36	30	53	42	34	28	37	30	26	32	27	23	28	23	20
8	53	40	32	26	50	38	30	25	33	27	23	29	24	20	25	21	18
9	50	37	29	23	46	35	27	22	31	25	20	27	22	18	23	19	16
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	22	18	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10778	10778	10778
5°	10827	10318	10260
10°	10754	9961	9815
15°	10602	9592	9359
20°	10410	9202	8927
25°	10222	8832	8535
30°	9957	8454	8146
35°	9689	8089	7860
40°	9407	7774	7577
45°	9138	7489	7329
50°	8848	7225	7085
55°	8545	6945	6838
60°	8175	6655	6577
65°	7789	6319	6275
70°	7349	5960	5953
75°	6791	5601	5646
80°	5908	5226	5331
85°	5015	4876	5058

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9138 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	1.7
10°-20°	185.1	5.0
20°-30°	280.5	7.5
30°-40°	341.6	9.2
40°-50°	367.5	9.8
50°-60°	356.9	9.6
60°-70°	311.7	8.4
70°-80°	239.9	6.4
80°-90°	161.8	4.3
90°-100°	135.9	3.6
100°-110°	160.6	4.3
110°-120°	189.7	5.1
120°-130°	209.0	5.6
130°-140°	213.6	5.7
140°-150°	199.3	5.3
150°-160°	165.4	4.4
160°-170°	109.7	2.9
170°-180°	38.3	1.0
0°-30°	530.2	14.2
0°-40°	871.7	23.4
0°-60°	1596.1	42.8
0°-90°	2309.5	61.9
90°-120°	486.1	13.0
90°-150°	1108.0	29.7
90°-180°	1422.0	38.1
0°-180°	3731.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	681	681	681	681	681	
5°	683	680	674	680	679	65
15°	651	653	653	662	661	183
25°	592	599	608	620	623	272
35°	510	527	546	567	574	319
45°	418	445	480	510	520	323
55°	321	356	408	443	456	287
65°	219	267	326	366	379	218
75°	121	177	240	282	295	128
85°	36	97	160	201	215	37
90°	10	72	142	181	193	8
95°	26	76	135	173	184	26
105°	78	108	160	195	206	83
115°	141	154	197	226	236	139
125°	201	204	234	260	269	180
135°	258	262	273	293	300	200
145°	312	315	317	323	327	195
155°	357	358	359	361	360	164
165°	388	388	388	390	389	110
175°	404	403	402	405	403	38
180°	405	405	405	405	405	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.9	680.9	680.9	680.9	680.9
2.5°	685.8	682.9	675.9	680.9	678.9
5°	682.9	679.9	674.0	679.9	678.9
7.5°	677.9	675.9	671.0	677.9	676.9
10°	672.0	670.0	667.1	675.0	674.0
12.5°	662.1	663.1	661.1	669.0	668.1
15°	651.3	653.3	653.3	662.1	661.1
17.5°	637.5	641.4	644.4	653.3	653.3
20°	623.6	628.6	632.5	643.4	643.4
22.5°	608.8	614.8	620.7	631.5	633.5
25°	592.1	599.0	607.9	619.7	622.7
27.5°	572.3	583.2	593.1	607.9	609.8
30°	552.6	565.4	578.3	594.0	597.0
32.5°	530.9	545.7	561.5	580.2	586.1
35°	510.2	526.9	545.7	567.4	574.3
37.5°	487.5	506.2	529.9	553.6	560.5
40°	464.8	486.5	513.1	538.8	547.7
42.5°	443.1	464.8	496.4	525.0	533.8
45°	418.4	445.0	479.6	510.2	520.0
47.5°	394.7	423.3	462.8	494.4	505.2
50°	370.0	400.6	445.0	478.6	489.4
52.5°	346.4	378.9	426.3	460.8	472.7
55°	320.7	356.2	407.5	443.1	455.9
57.5°	296.0	335.5	386.8	425.3	438.1
60°	269.4	311.8	368.1	405.6	419.4
62.5°	245.7	290.1	346.4	386.8	399.6
65°	219.1	267.4	325.6	366.1	378.9
67.5°	195.4	245.7	304.9	345.4	359.2
70°	169.7	221.0	282.2	324.7	336.5
72.5°	146.0	199.3	261.5	302.9	317.7
75°	121.4	176.6	239.8	282.2	295.0
77.5°	97.7	154.9	219.1	261.5	275.3
80°	74.0	134.2	198.3	239.8	253.6
82.5°	54.3	113.5	178.6	220.1	232.9
85°	35.5	96.7	159.9	201.3	215.1
87.5°	21.7	80.9	144.1	184.5	197.4
90°	10.2	71.5	142.3	181.0	193.2
92.5°	16.4	71.4	132.0	170.8	182.6
95°	25.7	75.5	135.4	172.9	184.0
97.5°	36.6	82.1	140.8	177.3	189.1
100°	50.3	89.5	145.8	182.3	192.8
102.5°	63.6	98.3	153.0	188.8	199.3
105°	78.4	108.1	160.1	195.2	206.1
107.5°	94.1	119.1	168.5	202.4	211.6
110°	108.1	129.9	178.2	209.8	219.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	124.5	142.3	187.4	218.0	228.2
115°	140.6	153.5	197.2	226.5	236.4
117.5°	155.7	166.3	206.0	234.6	243.5
120°	171.8	178.4	215.2	242.8	252.6
122.5°	186.5	190.8	225.7	251.2	259.5
125°	200.8	203.9	234.5	260.1	268.6
127.5°	215.9	218.6	243.9	267.2	275.1
130°	229.9	233.3	253.3	276.3	282.9
132.5°	245.6	248.0	263.1	284.1	291.0
135°	258.3	262.0	272.6	293.0	299.8
137.5°	273.3	276.4	281.9	300.4	305.9
140°	286.6	288.7	292.4	308.2	312.7
142.5°	300.3	302.3	303.4	315.5	319.1
145°	312.3	314.6	316.7	322.9	326.6
147.5°	323.9	326.9	328.3	330.0	331.5
150°	335.8	337.9	339.2	340.3	339.2
152.5°	346.4	348.5	350.2	351.5	350.2
155°	357.0	358.0	359.1	360.8	359.7
157.5°	366.2	366.9	367.6	370.0	368.3
160°	374.4	375.1	375.5	377.5	376.1
162.5°	381.9	381.9	382.3	384.7	383.0
165°	388.4	388.1	388.1	390.5	388.8
167.5°	394.2	393.2	393.2	395.6	393.9
170°	398.7	397.7	397.3	399.7	397.7
172.5°	401.8	400.7	400.4	402.8	400.7
175°	404.2	403.1	402.4	404.8	402.8
177.5°	405.5	404.5	403.8	405.9	403.8
180°	404.8	404.8	404.8	404.8	404.8

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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	14.48	15.52	15.31	16.39	17.48	17.55	18.60	18.39	19.47	20.55
	3H	15.95	16.90	16.80	17.77	18.89	20.15	21.10	21.00	21.98	23.09
	4H	16.43	17.33	17.30	18.22	19.34	21.41	22.32	22.28	23.20	24.32
	6H	16.73	17.56	17.60	18.45	19.59	22.72	23.56	23.59	24.45	25.58
	8H	16.79	17.59	17.67	18.50	19.63	23.38	24.18	24.27	25.09	26.23
	12H	16.81	17.58	17.70	18.48	19.64	24.12	24.88	25.01	25.78	26.95
4H	2H	15.55	16.45	16.41	17.33	18.45	17.90	18.80	18.77	19.69	20.81
	3H	17.27	18.04	18.15	18.95	20.09	20.71	21.47	21.59	22.39	23.52
	4H	17.90	18.60	18.79	19.51	20.67	22.13	22.84	23.02	23.75	24.91
	6H	18.32	18.94	19.23	19.87	21.04	23.61	24.23	24.51	25.16	26.32
	8H	18.44	19.02	19.34	19.94	21.12	24.37	24.95	25.28	25.88	27.06
	12H	18.49	19.02	19.42	19.96	21.15	25.21	25.74	26.14	26.68	27.87
8H	4H	18.70	19.28	19.61	20.21	21.39	22.29	22.87	23.20	23.80	24.98
	6H	19.34	19.83	20.28	20.80	21.98	23.93	24.42	24.86	25.38	26.56
	8H	19.57	20.01	20.51	20.96	22.16	24.82	25.26	25.76	26.22	27.41
	12H	19.71	20.10	20.66	21.05	22.29	25.82	26.21	26.77	27.16	28.41
12H	4H	18.91	19.44	19.84	20.38	21.57	22.27	22.80	23.20	23.75	24.93
	6H	19.68	20.12	20.62	21.08	22.27	23.95	24.39	24.89	25.35	26.54
	8H	19.99	20.38	20.94	21.34	22.58	24.89	25.28	25.84	26.23	27.47