

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: P998747

Luminaire Tested: SA2XXDIP-B675D330UB2750-4F0-XX-W2A-D_3000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998747
REPORT IS A COMBINATION OF REPORTS P984493 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB2750-4F0-XX-W2A-D_3000K
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

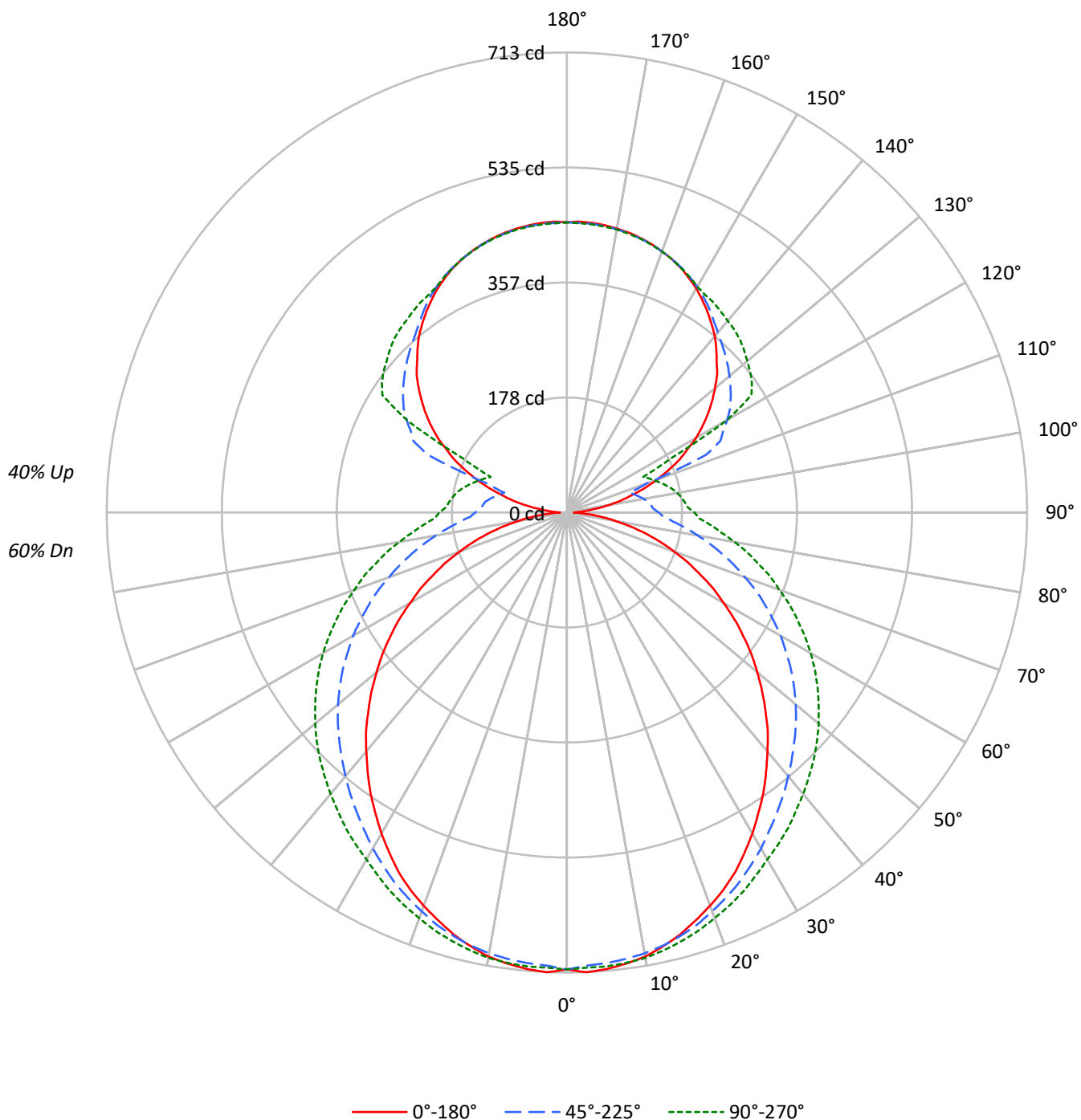
Lumens per Lamp: N/A
Luminaire Lumens: 4021.0 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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
RCR																	
0	109	109	109	109	102	102	102	102	89	89	89		76	76	76		65
1	98	93	88	84	91	87	83	79	75	72	69		65	62	60		55
2	89	80	73	67	82	75	69	63	65	60	56		56	52	49		47
3	80	70	62	55	75	65	58	52	57	51	46		49	44	40		41
4	73	62	53	46	68	58	50	44	50	44	39		43	38	34		36
5	67	55	46	39	62	51	43	37	45	38	33		38	33	29		33
6	62	49	40	34	57	46	38	32	40	34	29		35	29	26		29
7	57	44	36	30	53	41	34	28	36	30	25		31	26	22		27
8	53	40	32	26	49	38	30	25	33	27	22		29	24	20		25
9	49	36	29	23	46	34	27	22	30	24	20		26	21	18		23
10	46	33	26	21	43	32	25	20	28	22	18		24	20	16		21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11209	11209	11209
5°	11260	10732	10671
10°	11184	10360	10209
15°	11026	9975	9734
20°	10827	9570	9284
25°	10631	9185	8876
30°	10355	8791	8472
35°	10077	8412	8175
40°	9784	8086	7880
45°	9503	7789	7624
50°	9204	7516	7369
55°	8886	7225	7111
60°	8503	6921	6840
65°	8098	6573	6527
70°	7644	6199	6192
75°	7060	5826	5874
80°	6148	5436	5546
85°	5212	5071	5260

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9503 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.1	1.7
10°-20°	192.5	4.8
20°-30°	291.7	7.3
30°-40°	355.2	8.8
40°-50°	382.2	9.5
50°-60°	371.2	9.2
60°-70°	324.2	8.1
70°-80°	249.5	6.2
80°-90°	167.9	4.2
90°-100°	130.1	3.2
100°-110°	139.5	3.5
110°-120°	202.2	5.0
120°-130°	274.1	6.8
130°-140°	271.3	6.7
140°-150°	242.2	6.0
150°-160°	193.0	4.8
160°-170°	124.3	3.1
170°-180°	42.8	1.1
0°-30°	551.4	13.7
0°-40°	906.6	22.5
0°-60°	1660.0	41.3
0°-90°	2401.6	59.7
90°-120°	471.7	11.7
90°-150°	1259.3	31.3
90°-180°	1619.0	40.3
0°-180°	4021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	710	707	701	707	706	67
15°	677	679	679	689	688	191
25°	616	623	632	644	648	283
35°	531	548	568	590	597	332
45°	435	463	499	531	541	336
55°	334	370	424	461	474	298
65°	228	278	339	381	394	226
75°	126	184	249	294	307	134
85°	37	101	166	209	224	39
90°	11	74	142	185	198	8
95°	29	67	131	171	183	31
105°	104	144	108	148	160	112
115°	191	208	262	142	130	188
125°	267	271	310	340	350	238
135°	328	334	347	372	379	254
145°	380	379	385	393	397	238
155°	418	415	419	421	418	193
165°	440	439	440	442	440	124
175°	451	448	449	451	448	43
180°	450	450	450	450	450	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	708.1	708.1	708.1	708.1	708.1
2.5°	713.3	710.2	703.0	708.1	706.1
5°	710.2	707.1	701.0	707.1	706.1
7.5°	705.1	703.0	697.9	705.1	704.0
10°	698.9	696.8	693.8	702.0	701.0
12.5°	688.6	689.7	687.6	695.8	694.8
15°	677.3	679.4	679.4	688.6	687.6
17.5°	663.0	667.1	670.2	679.4	679.4
20°	648.6	653.7	657.8	669.1	669.1
22.5°	633.2	639.4	645.5	656.8	658.9
25°	615.8	623.0	632.2	644.5	647.6
27.5°	595.2	606.5	616.8	632.2	634.2
30°	574.7	588.1	601.4	617.8	620.9
32.5°	552.1	567.5	584.0	603.5	609.6
35°	530.6	548.0	567.5	590.1	597.3
37.5°	507.0	526.5	551.1	575.7	582.9
40°	483.4	506.0	533.7	560.4	569.6
42.5°	460.8	483.4	516.2	546.0	555.2
45°	435.1	462.9	498.8	530.6	540.9
47.5°	410.5	440.3	481.3	514.2	525.5
50°	384.9	416.7	462.9	497.7	509.0
52.5°	360.2	394.1	443.4	479.3	491.6
55°	333.5	370.5	423.9	460.8	474.1
57.5°	307.9	348.9	402.3	442.3	455.7
60°	280.2	324.3	382.8	421.8	436.2
62.5°	255.5	301.7	360.2	402.3	415.6
65°	227.8	278.1	338.7	380.8	394.1
67.5°	203.2	255.5	317.1	359.2	373.6
70°	176.5	229.9	293.5	337.6	350.0
72.5°	151.9	207.3	272.0	315.1	330.5
75°	126.2	183.7	249.4	293.5	306.9
77.5°	101.6	161.1	227.8	272.0	286.3
80°	77.0	139.6	206.3	249.4	263.8
82.5°	56.4	118.0	185.8	228.9	242.2
85°	36.9	100.6	166.3	209.4	223.7
87.5°	22.6	84.2	149.8	191.9	205.3
90°	10.6	73.7	142.0	184.6	197.6
92.5°	17.3	70.4	134.0	174.8	187.4
95°	29.3	66.8	130.7	171.3	183.3
97.5°	45.3	62.7	127.4	166.4	179.0
100°	64.8	58.2	121.1	161.7	173.7
102.5°	85.3	118.4	114.6	155.2	167.5
105°	104.0	143.6	108.1	147.6	160.2
107.5°	127.1	159.9	101.6	140.1	152.7
110°	148.2	175.6	131.8	132.2	144.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	169.1	191.3	233.0	125.7	137.9
115°	191.2	208.0	262.3	142.5	130.4
117.5°	209.4	224.1	272.7	257.0	181.9
120°	230.9	239.8	286.7	319.4	286.8
122.5°	249.1	255.3	299.8	329.4	339.0
125°	266.6	270.8	309.8	339.8	350.0
127.5°	283.5	287.0	319.6	348.5	358.1
130°	299.5	303.6	328.8	356.9	364.8
132.5°	315.7	318.9	337.9	364.4	372.3
135°	328.3	333.5	346.7	371.5	379.1
137.5°	342.6	346.5	355.0	377.7	383.9
140°	356.6	358.2	363.9	383.2	387.7
142.5°	368.3	369.6	373.8	388.7	392.2
145°	379.7	379.4	384.9	393.4	396.9
147.5°	390.4	389.5	395.0	397.6	399.4
150°	400.8	398.6	403.8	405.7	404.1
152.5°	409.6	407.0	411.9	413.9	411.6
155°	418.1	415.2	419.1	421.0	418.4
157.5°	424.9	422.3	425.2	427.5	424.9
160°	430.8	428.8	430.8	432.7	430.5
162.5°	436.0	434.0	435.7	437.9	435.0
165°	440.5	438.6	439.6	441.8	439.6
167.5°	444.1	442.2	443.1	445.4	442.5
170°	447.0	445.1	445.7	448.0	445.1
172.5°	449.0	447.0	447.7	450.0	447.0
175°	450.6	448.3	449.0	451.3	448.0
177.5°	451.3	449.0	449.3	451.6	448.7
180°	449.6	449.6	449.6	449.6	449.6

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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	14.44	15.46	15.30	16.35	17.47	17.52	18.53	18.37	19.42	20.54
	3H	15.91	16.83	16.78	17.73	18.88	20.11	21.04	20.98	21.94	23.08
	4H	16.39	17.27	17.28	18.17	19.33	21.37	22.25	22.26	23.16	24.31
	6H	16.68	17.50	17.58	18.41	19.58	22.68	23.49	23.57	24.40	25.57
	8H	16.75	17.53	17.65	18.45	19.62	23.34	24.12	24.25	25.05	26.22
	12H	16.77	17.51	17.68	18.43	19.63	24.07	24.82	24.98	25.74	26.93
4H	2H	15.51	16.39	16.39	17.29	18.44	17.86	18.74	18.75	19.64	20.80
	3H	17.23	17.97	18.13	18.91	20.08	20.66	21.41	21.56	22.34	23.51
	4H	17.85	18.54	18.76	19.47	20.66	22.09	22.77	23.00	23.70	24.90
	6H	18.28	18.88	19.20	19.83	21.03	23.56	24.17	24.49	25.12	26.31
	8H	18.39	18.96	19.32	19.90	21.11	24.32	24.89	25.25	25.84	27.05
	12H	18.44	18.96	19.39	19.92	21.14	25.16	25.68	26.11	26.64	27.86
8H	4H	18.66	19.22	19.58	20.17	21.38	22.24	22.81	23.17	23.76	24.97
	6H	19.30	19.77	20.25	20.76	21.97	23.88	24.36	24.83	25.34	26.55
	8H	19.52	19.95	20.48	20.92	22.15	24.77	25.20	25.73	26.17	27.40
	12H	19.66	20.04	20.63	21.01	22.28	25.77	26.15	26.74	27.12	28.39
12H	4H	18.86	19.38	19.81	20.34	21.56	22.23	22.74	23.17	23.70	24.92
	6H	19.63	20.06	20.59	21.03	22.26	23.91	24.33	24.87	25.31	26.53
	8H	19.94	20.32	20.91	21.29	22.57	24.84	25.22	25.81	26.19	27.46