

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: P997862

Luminaire Tested: SA2XXDIP-B1005D330UB2750-4F0-XX-W2A-F_3500K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997862
REPORT IS A COMBINATION OF REPORTS P983599 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D330UB2750-4F0-XX-W2A-F_3500K
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

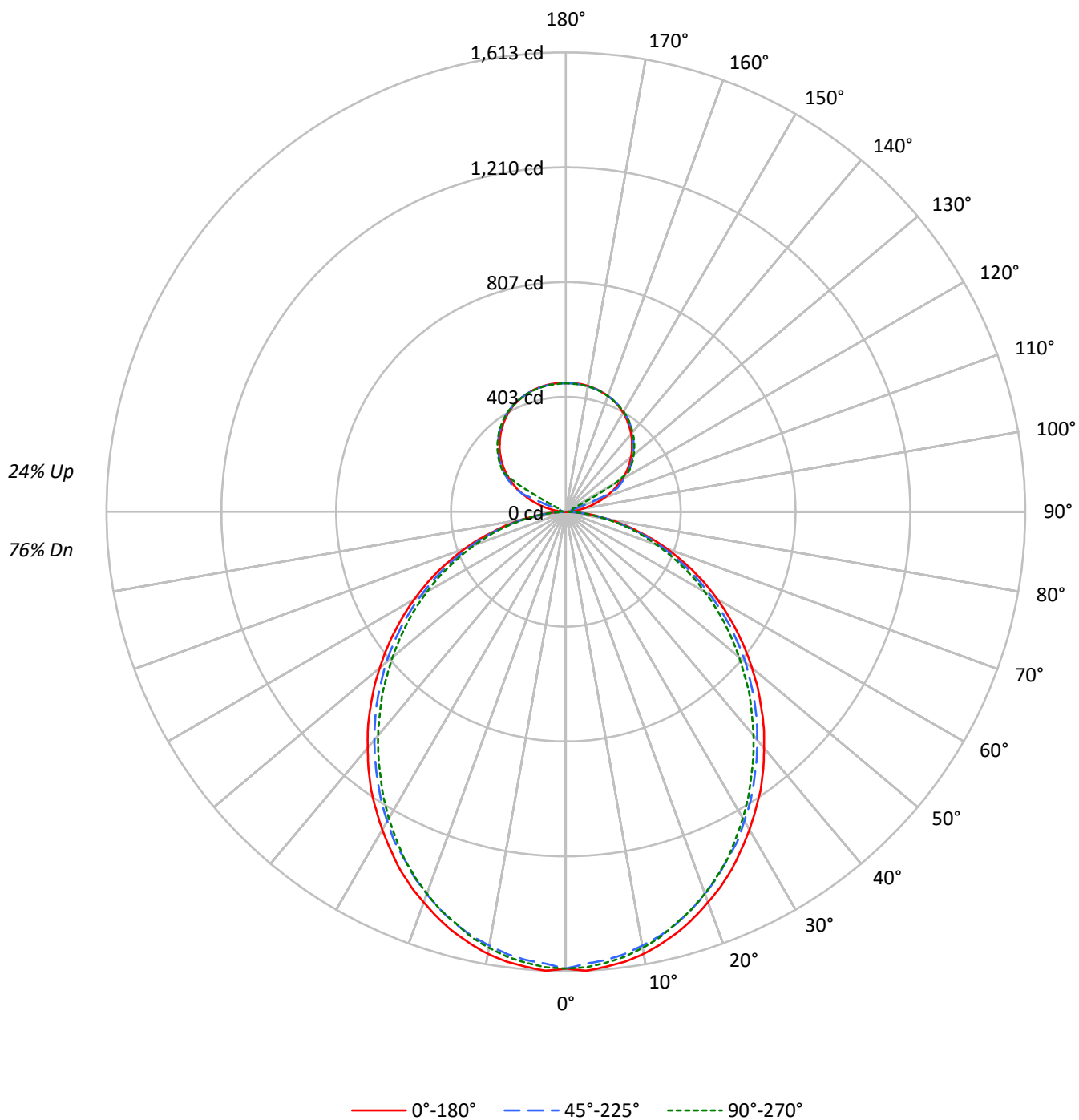
Lumens per Lamp: N/A
Luminaire Lumens: 5405.0 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 70.6
Input Voltage (V):
Input Current (A_{in}): 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	50	30	10
RCR																				
0	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80	76		
1	104	99	95	91	98	94	91	88	86	83	80	78	76	74	70	69	67	64		
2	94	87	80	75	89	83	77	72	75	71	67	68	65	62	62	59	57	53		
3	86	76	68	62	82	73	66	60	66	61	56	60	56	52	55	51	48	45		
4	79	68	59	53	75	65	57	51	59	53	48	54	49	45	49	45	42	39		
5	73	60	52	46	69	58	50	44	53	47	42	49	43	39	44	40	36	34		
6	67	54	46	40	63	52	44	39	48	41	36	44	38	34	40	36	32	30		
7	62	49	41	35	59	47	40	34	44	37	32	40	35	30	37	32	29	26		
8	58	45	37	31	55	43	36	30	40	33	29	37	31	27	34	29	26	24		
9	54	41	33	28	51	40	32	27	37	30	26	34	28	25	31	27	23	21		
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21	19		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25392	25392	25392
5°	25433	24202	24031
10°	25225	23099	22641
15°	24856	21987	21179
20°	24357	20779	19795
25°	23859	19517	18413
30°	23232	18330	16963
35°	22644	17079	15537
40°	21913	15843	14190
45°	21189	14619	12870
50°	20396	13372	11499
55°	19564	12039	10202
60°	18629	10597	8852
65°	17601	9129	7433
70°	16296	7525	6002
75°	14494	5800	4636
80°	12311	3942	2983
85°	8927	1836	1270

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 21189 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.0	2.8
10°-20°	424.8	7.9
20°-30°	624.2	11.5
30°-40°	725.0	13.4
40°-50°	724.1	13.4
50°-60°	631.4	11.7
60°-70°	466.7	8.6
70°-80°	264.1	4.9
80°-90°	70.5	1.3
90°-100°	14.9	0.3
100°-110°	55.5	1.0
110°-120°	147.1	2.7
120°-130°	244.0	4.5
130°-140°	259.2	4.8
140°-150°	240.9	4.5
150°-160°	193.7	3.6
160°-170°	124.8	2.3
170°-180°	43.0	0.8
0°-30°	1200.0	22.2
0°-40°	1925.0	35.6
0°-60°	3280.5	60.7
0°-90°	4081.8	75.5
90°-120°	217.5	4.0
90°-150°	961.7	17.8
90°-180°	1323.0	24.5
0°-180°	5405.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1604	1604	1604	1604	1604	
5°	1604	1598	1581	1593	1590	152
15°	1527	1518	1498	1504	1496	430
25°	1382	1370	1343	1346	1343	636
35°	1192	1177	1152	1143	1135	745
45°	970	959	936	919	913	749
55°	734	725	706	688	680	656
65°	495	486	470	456	449	490
75°	259	256	248	239	242	277
85°	63	62	60	56	54	70
90°	0	4	6	8	9	5
95°	21	10	13	14	14	25
105°	99	109	20	24	25	106
115°	188	193	202	50	27	185
125°	266	270	276	278	279	237
135°	329	334	337	340	339	254
145°	381	381	386	389	387	238
155°	420	417	421	423	420	193
165°	442	440	441	444	441	125
175°	452	450	451	453	450	43
180°	451	451	451	451	451	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1604.1	1604.1	1604.1	1604.1	1604.1
2.5°	1613.3	1605.6	1588.6	1604.1	1601.0
5°	1604.1	1597.9	1580.9	1593.3	1590.2
7.5°	1593.3	1584.0	1567.0	1579.4	1576.3
10°	1576.3	1565.5	1547.0	1559.3	1554.7
12.5°	1553.2	1543.9	1525.4	1533.1	1530.0
15°	1526.9	1517.7	1497.6	1503.8	1496.1
17.5°	1494.6	1485.3	1465.3	1473.0	1465.3
20°	1459.1	1449.8	1428.2	1432.9	1426.7
22.5°	1423.6	1409.7	1389.7	1389.7	1386.6
25°	1382.0	1369.6	1343.4	1346.5	1343.4
27.5°	1335.7	1324.9	1304.8	1300.2	1292.5
30°	1289.4	1277.1	1253.9	1249.3	1243.2
32.5°	1240.1	1230.8	1206.1	1196.9	1190.7
35°	1192.3	1176.8	1152.2	1142.9	1135.2
37.5°	1138.3	1124.4	1099.7	1088.9	1081.2
40°	1082.7	1070.4	1045.7	1031.8	1025.7
42.5°	1028.8	1016.4	991.7	976.3	967.1
45°	970.2	959.4	936.2	919.3	913.1
47.5°	913.1	902.3	877.6	860.6	851.4
50°	852.9	845.2	823.6	802.0	794.3
52.5°	794.3	783.5	763.5	746.5	735.7
55°	734.2	724.9	706.4	687.9	680.2
57.5°	674.0	666.3	646.3	627.7	621.6
60°	613.9	607.7	586.1	569.1	564.5
62.5°	555.3	544.5	529.0	513.6	507.4
65°	495.1	485.8	470.4	456.5	448.8
67.5°	433.4	425.7	411.8	401.0	394.8
70°	376.3	370.2	356.3	345.5	339.3
72.5°	317.7	311.6	303.8	293.1	288.4
75°	259.1	256.0	248.3	239.1	242.2
77.5°	206.7	200.5	197.4	192.8	188.2
80°	154.2	152.7	149.6	145.0	141.9
82.5°	104.9	104.9	103.3	97.2	97.2
85°	63.2	61.7	60.2	55.5	54.0
87.5°	27.8	24.7	21.6	17.0	15.4
90°	0.3	3.9	6.5	8.2	8.8
92.5°	8.2	6.9	7.8	8.5	8.8
95°	21.2	10.5	12.7	14.4	14.0
97.5°	38.2	11.4	16.7	17.6	18.0
100°	57.8	13.1	18.6	21.2	21.9
102.5°	79.4	78.7	19.3	22.9	23.8
105°	99.3	109.1	19.9	23.5	24.8
107.5°	122.5	130.6	20.6	24.2	25.5
110°	144.7	151.5	57.2	24.5	25.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	165.6	171.5	165.9	25.1	26.1
115°	187.8	193.3	201.5	50.3	26.8
117.5°	207.1	213.6	219.1	172.4	86.9
120°	228.6	233.5	239.4	243.3	199.2
122.5°	246.9	252.1	258.7	260.6	260.9
125°	265.5	269.8	276.0	278.3	279.2
127.5°	282.5	287.1	292.0	295.2	295.6
130°	298.5	303.7	307.3	310.9	310.6
132.5°	314.8	319.1	322.7	325.6	325.3
135°	328.6	333.8	336.7	340.0	339.3
137.5°	342.9	346.8	350.1	353.4	352.4
140°	357.0	359.6	363.2	366.1	364.5
142.5°	368.7	371.0	375.3	377.9	376.2
145°	381.1	380.8	386.4	388.6	387.0
147.5°	391.9	390.9	396.5	398.1	396.8
150°	402.4	400.1	405.3	407.3	405.6
152.5°	411.2	408.6	413.5	415.4	413.1
155°	419.7	416.7	420.7	422.6	420.0
157.5°	426.5	423.9	426.9	429.1	426.5
160°	432.4	430.5	432.4	434.4	432.1
162.5°	437.6	435.7	437.3	439.6	436.7
165°	442.2	440.2	441.2	443.5	441.2
167.5°	445.8	443.8	444.8	447.1	444.2
170°	448.7	446.8	447.4	449.7	446.8
172.5°	450.7	448.7	449.4	451.7	448.7
175°	452.3	450.0	450.7	453.0	449.7
177.5°	453.0	450.7	451.0	453.3	450.4
180°	451.4	451.4	451.4	451.4	451.4

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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	18.56	19.71	19.26	20.43	21.28	19.34	20.49	20.04	21.21	22.06
	3H	19.92	20.95	20.63	21.68	22.57	20.99	22.02	21.70	22.75	23.64
	4H	20.33	21.31	21.07	22.05	22.95	21.59	22.57	22.33	23.31	24.21
	6H	20.57	21.47	21.32	22.22	23.13	22.01	22.91	22.76	23.66	24.57
	8H	20.61	21.46	21.36	22.24	23.15	22.13	22.98	22.88	23.76	24.67
	12H	20.61	21.43	21.37	22.19	23.13	22.18	23.00	22.94	23.76	24.71
4H	2H	19.06	20.04	19.80	20.78	21.68	19.70	20.68	20.44	21.42	22.32
	3H	20.60	21.42	21.35	22.20	23.11	21.51	22.32	22.26	23.10	24.02
	4H	21.12	21.86	21.89	22.64	23.58	22.20	22.94	22.97	23.72	24.67
	6H	21.44	22.08	22.22	22.89	23.84	22.72	23.36	23.50	24.16	25.11
	8H	21.50	22.10	22.29	22.90	23.87	22.86	23.46	23.65	24.26	25.23
	12H	21.52	22.06	22.33	22.88	23.85	22.94	23.48	23.75	24.30	25.27
8H	4H	21.32	21.92	22.11	22.72	23.68	22.31	22.91	23.10	23.71	24.67
	6H	21.71	22.21	22.53	23.05	24.02	22.89	23.39	23.71	24.23	25.20
	8H	21.82	22.26	22.65	23.10	24.08	23.08	23.53	23.91	24.37	25.35
	12H	21.87	22.26	22.70	23.09	24.12	23.20	23.59	24.03	24.42	25.45
12H	4H	21.32	21.86	22.12	22.68	23.65	22.29	22.83	23.10	23.65	24.62
	6H	21.73	22.18	22.56	23.02	24.00	22.89	23.33	23.72	24.17	25.15
	8H	21.86	22.25	22.69	23.08	24.12	23.10	23.49	23.93	24.32	25.36