

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: P997549

Luminaire Tested: SA2XXDP-B1005DB2750-4F0-XX-W2A-F_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997549
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B1005DB2750-4F0-XX-W2A-F_3500K
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

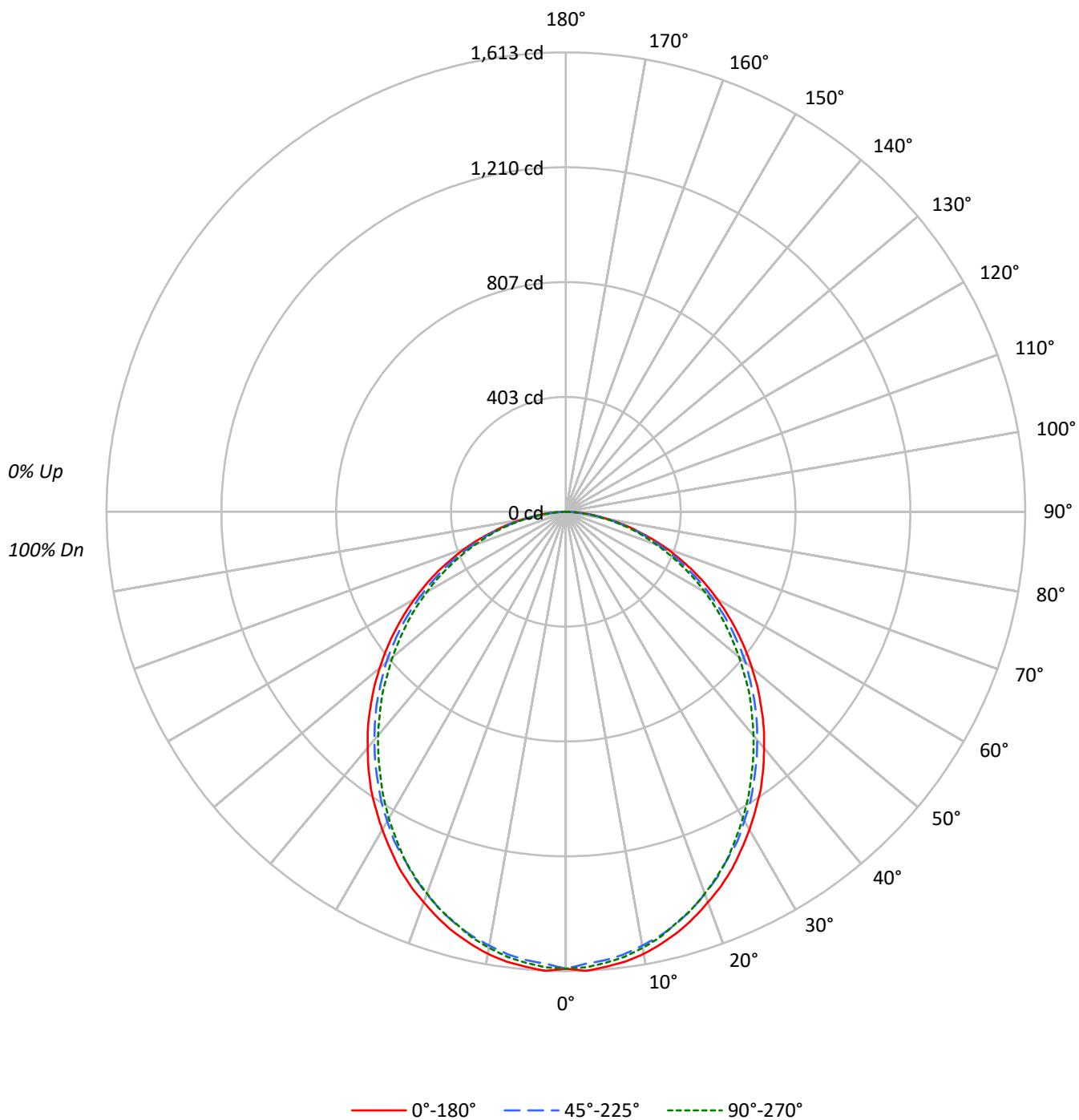
Lumens per Lamp: N/A
Luminaire Lumens: 4081.0 lumens
Efficiency: N/A
Efficacy: 66.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25392	25392	25392
5°	25489	25120	25268
10°	25337	24866	24989
15°	25022	24542	24518
20°	24579	24058	24033
25°	24138	23463	23463
30°	23568	22919	22723
35°	23040	22265	21937
40°	22373	21608	21195
45°	21719	20958	20441
50°	21004	20282	19560
55°	20262	19495	18772
60°	19435	18555	17871
65°	18544	17619	16810
70°	17416	16490	15703
75°	15846	15186	14813
80°	14056	13637	12935
85°	11478	10934	9808

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 21719 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.0	3.7
10°-20°	424.8	10.4
20°-30°	624.2	15.3
30°-40°	725.0	17.8
40°-50°	724.1	17.7
50°-60°	631.4	15.5
60°-70°	466.7	11.4
70°-80°	264.1	6.5
80°-90°	69.7	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1200.0	29.4
0°-40°	1925.0	47.2
0°-60°	3280.5	80.4
0°-90°	4081.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4081.0	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	74
90°	0	0	0	0	0	

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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°	0.0	0.0	0.0	0.0	0.0

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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	22.52	24.13	22.88	24.44	24.76	22.08	23.69	22.44	24.00	24.31
	3H	24.27	25.72	24.65	26.05	26.41	23.78	25.23	24.16	25.56	25.92
	4H	24.92	26.29	25.31	26.63	27.01	24.42	25.79	24.82	26.14	26.51
	6H	25.39	26.65	25.80	27.02	27.41	24.88	26.15	25.29	26.52	26.91
	8H	25.53	26.74	25.95	27.13	27.53	25.03	26.24	25.45	26.63	27.02
	12H	25.62	26.78	26.05	27.16	27.59	25.11	26.27	25.54	26.65	27.08
4H	2H	23.08	24.45	23.48	24.80	25.17	22.73	24.10	23.13	24.44	24.82
	3H	25.06	26.20	25.46	26.60	27.00	24.65	25.79	25.06	26.19	26.59
	4H	25.83	26.87	26.26	27.28	27.72	25.41	26.44	25.84	26.86	27.29
	6H	26.43	27.33	26.88	27.77	28.23	26.00	26.90	26.45	27.34	27.80
	8H	26.62	27.46	27.08	27.91	28.37	26.18	27.03	26.64	27.47	27.93
	12H	26.75	27.51	27.23	27.99	28.45	26.30	27.06	26.78	27.53	28.00
8H	4H	26.11	26.95	26.57	27.39	27.86	25.73	26.58	26.19	27.02	27.49
	6H	26.82	27.52	27.31	28.01	28.49	26.44	27.14	26.93	27.63	28.10
	8H	27.08	27.71	27.59	28.22	28.70	26.69	27.32	27.20	27.82	28.31
	12H	27.28	27.84	27.79	28.33	28.89	26.87	27.42	27.37	27.91	28.48
12H	4H	26.13	26.89	26.61	27.37	27.84	25.77	26.53	26.25	27.00	27.47
	6H	26.86	27.50	27.37	28.00	28.49	26.50	27.13	27.01	27.64	28.12
	8H	27.18	27.74	27.69	28.23	28.79	26.80	27.36	27.31	27.85	28.41