

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: P997714

Luminaire Tested: SA2XXRDP-B290DB2750-4F0-XX-W2A-F_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997714
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXRDP-B290DB2750-4F0-XX-W2A-F_4000K
Description: Define 2 Regressed Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

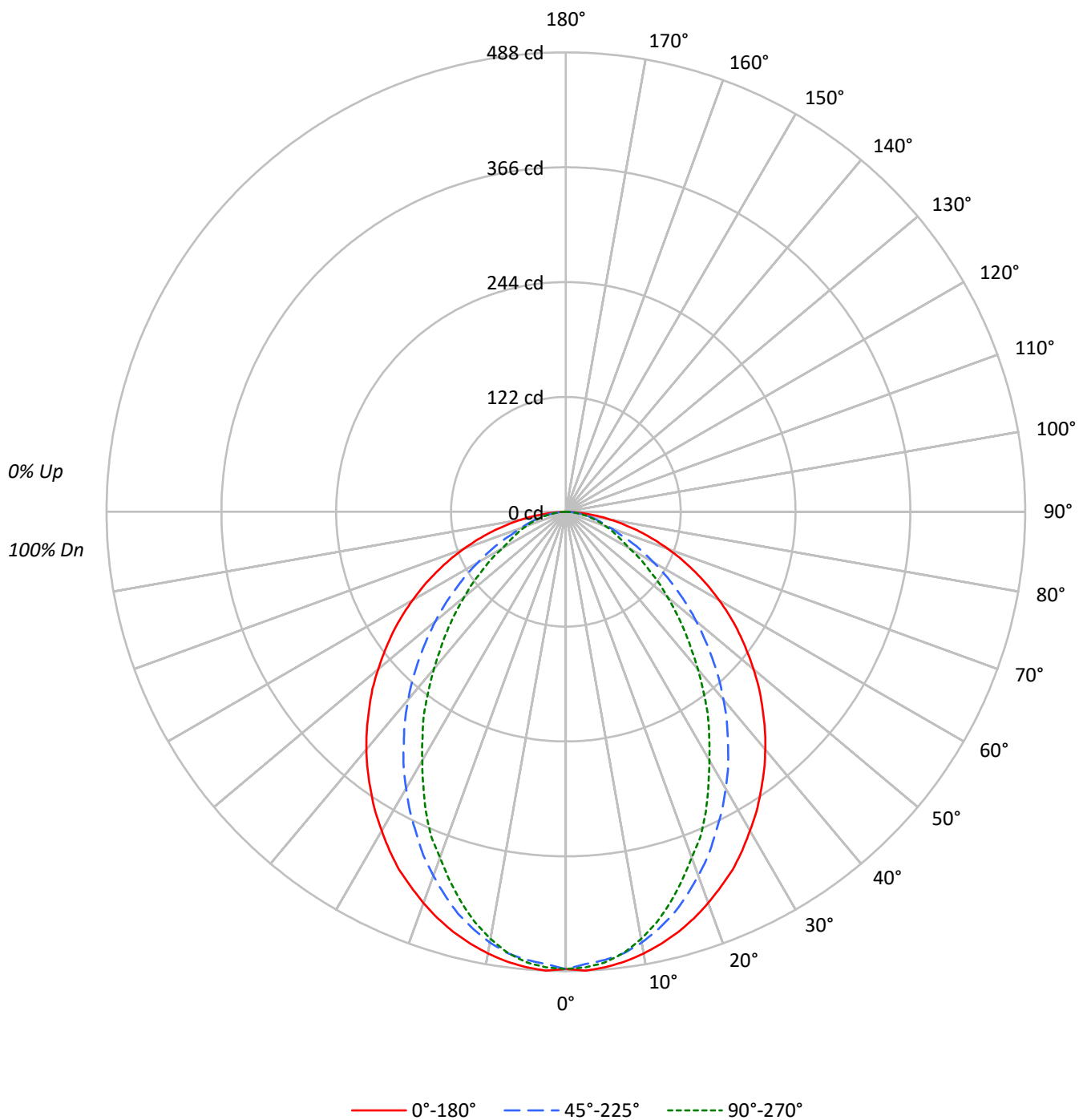
Lumens per Lamp: N/A
Luminaire Lumens: 999.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 13
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	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7688	7688	7688
5°	7718	7592	7635
10°	7659	7468	7405
15°	7571	7247	7039
20°	7449	6932	6583
25°	7325	6572	6143
30°	7150	6204	5577
35°	6982	5801	5080
40°	6813	5387	4505
45°	6613	4920	3985
50°	6408	4450	3475
55°	6198	3944	2983
60°	5955	3410	2476
65°	5682	2865	2255
70°	5350	2360	2073
75°	4948	2153	1939
80°	4366	1923	1759
85°	3433	1526	1526

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6613 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	4.6
10°-20°	125.0	12.5
20°-30°	175.5	17.6
30°-40°	191.3	19.1
40°-50°	175.8	17.6
50°-60°	138.0	13.8
60°-70°	89.9	9.0
70°-80°	46.3	4.6
80°-90°	11.8	1.2
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°	346.0	34.6
0°-40°	537.2	53.8
0°-60°	851.1	85.2
0°-90°	999.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	999.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	486	486	486	486	486	
5°	486	484	478	482	480	46
15°	462	457	442	434	430	130
25°	419	405	376	358	352	193
35°	361	339	300	272	263	226
45°	295	266	220	189	178	228
55°	225	190	143	116	108	201
65°	152	116	76	62	60	150
75°	81	50	35	32	32	86
85°	19	10	8	8	8	23
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	485.7	485.7	485.7	485.7	485.7
2.5°	487.9	485.7	480.9	485.3	484.4
5°	485.7	483.5	477.8	481.8	480.5
7.5°	481.8	479.2	473.0	474.8	472.6
10°	476.5	473.4	464.6	463.3	460.7
12.5°	469.9	466.0	454.1	451.5	446.6
15°	462.0	457.2	442.2	433.9	429.5
17.5°	452.8	445.7	427.3	417.6	410.6
20°	442.2	433.4	411.5	400.5	390.8
22.5°	430.8	420.7	395.2	380.2	373.7
25°	419.4	405.3	376.3	358.3	351.7
27.5°	405.7	390.8	358.7	338.0	327.9
30°	391.2	374.5	339.4	316.9	305.1
32.5°	377.2	356.9	320.9	294.5	283.5
35°	361.3	338.9	300.2	272.5	262.9
37.5°	346.0	321.8	280.9	250.6	239.6
40°	329.7	303.3	260.7	229.5	218.0
42.5°	313.0	284.9	240.5	207.9	196.9
45°	295.4	266.0	219.8	188.6	178.0
47.5°	278.7	247.5	200.0	168.8	159.1
50°	260.2	229.0	180.7	150.3	141.1
52.5°	242.2	209.2	162.2	133.2	124.8
55°	224.6	190.3	142.9	116.5	108.1
57.5°	206.6	171.4	125.7	101.1	94.1
60°	188.1	153.0	107.7	85.3	78.2
62.5°	170.1	135.0	92.3	71.2	67.7
65°	151.7	116.1	76.5	61.5	60.2
67.5°	134.1	98.5	61.5	54.1	52.8
70°	115.6	81.3	51.0	46.6	44.8
72.5°	98.0	65.5	42.6	39.1	38.2
75°	80.9	50.1	35.2	32.1	31.7
77.5°	63.7	35.6	27.7	25.9	25.1
80°	47.9	25.5	21.1	19.3	19.3
82.5°	33.4	17.1	14.5	13.6	13.6
85°	18.9	9.7	8.4	8.4	8.4
87.5°	7.0	3.5	3.5	3.1	3.1
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	18.32	19.84	18.69	20.16	20.47	14.28	15.80	14.65	16.12	16.43
	3H	20.09	21.45	20.46	21.78	22.14	15.55	16.91	15.93	17.24	17.60
	4H	20.75	22.03	21.15	22.38	22.76	16.05	17.33	16.45	17.68	18.06
	6H	21.24	22.42	21.65	22.79	23.18	16.43	17.61	16.84	17.98	18.37
	8H	21.41	22.53	21.83	22.92	23.32	16.55	17.68	16.98	18.07	18.47
	12H	21.51	22.59	21.94	22.97	23.40	16.64	17.71	17.07	18.10	18.53
4H	2H	18.42	19.71	18.82	20.05	20.43	14.98	16.26	15.38	16.61	16.99
	3H	20.36	21.42	20.77	21.82	22.22	16.42	17.48	16.83	17.88	18.29
	4H	21.11	22.06	21.54	22.48	22.92	17.02	17.98	17.45	18.39	18.83
	6H	21.70	22.53	22.16	22.97	23.43	17.51	18.34	17.97	18.78	19.24
	8H	21.91	22.69	22.38	23.14	23.60	17.67	18.45	18.13	18.89	19.36
	12H	22.07	22.76	22.55	23.24	23.71	17.79	18.48	18.27	18.96	19.43
8H	4H	21.13	21.91	21.60	22.35	22.82	17.37	18.15	17.84	18.60	19.06
	6H	21.77	22.41	22.27	22.90	23.38	17.96	18.60	18.46	19.09	19.57
	8H	22.02	22.60	22.53	23.11	23.59	18.18	18.76	18.69	19.27	19.75
	12H	22.22	22.73	22.73	23.23	23.79	18.36	18.87	18.87	19.36	19.93
12H	4H	21.12	21.81	21.60	22.29	22.76	17.42	18.11	17.90	18.59	19.06
	6H	21.75	22.33	22.26	22.84	23.33	18.02	18.60	18.54	19.11	19.60
	8H	22.03	22.54	22.54	23.04	23.60	18.30	18.81	18.81	19.30	19.86