

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: P997578

Luminaire Tested: SA2XXDP-B290DB2750-4F0-XX-W2A-F_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997578
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-B290DB2750-4F0-XX-W2A-F_3000K
Description: Define 2 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

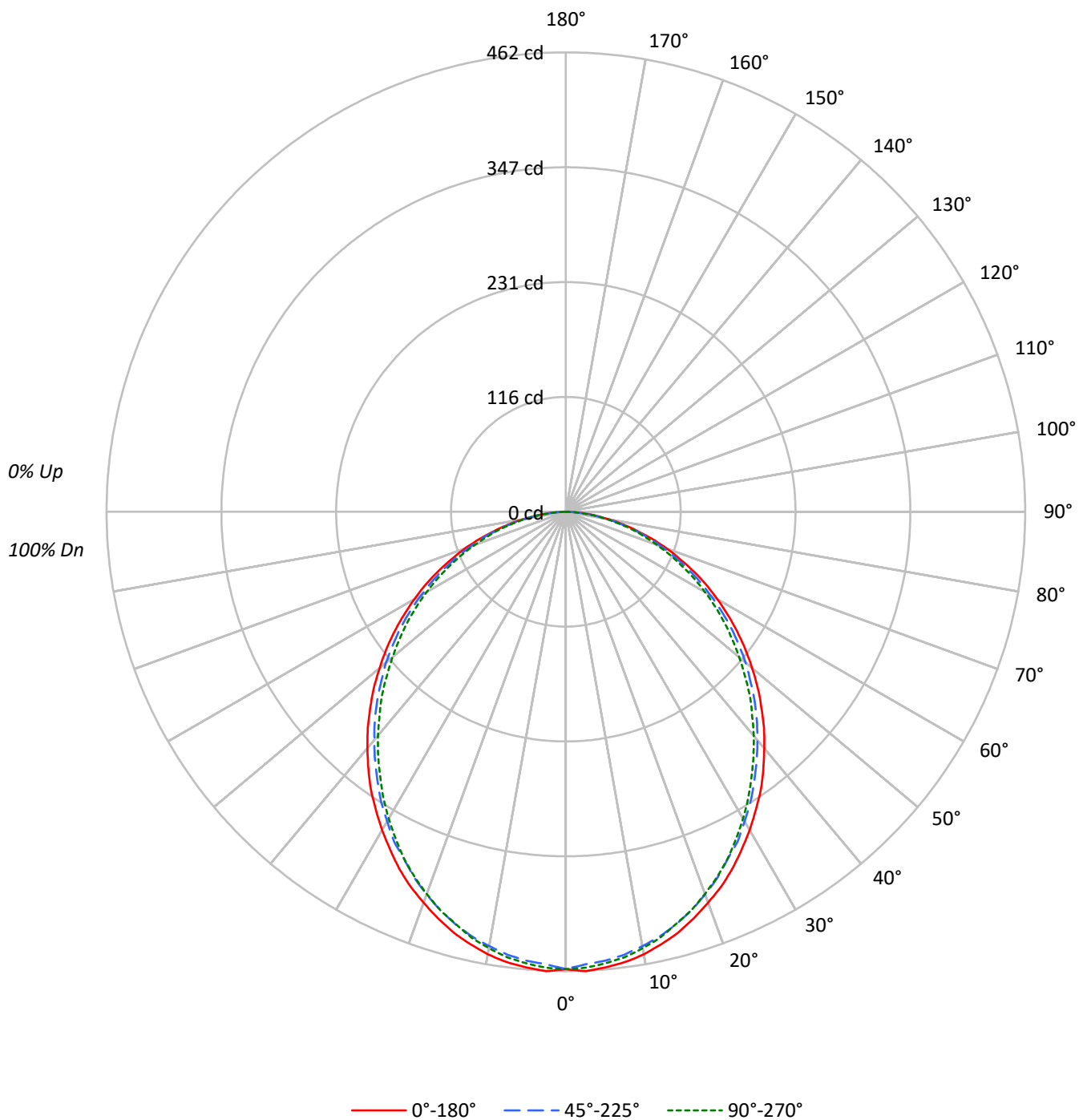
Lumens per Lamp: N/A
Luminaire Lumens: 1170.0 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	7280	7280	7280
5°	7308	7201	7244
10°	7264	7129	7164
15°	7175	7037	7029
20°	7046	6898	6890
25°	6920	6726	6726
30°	6757	6571	6514
35°	6605	6383	6290
40°	6414	6195	6077
45°	6226	6008	5861
50°	6021	5814	5607
55°	5809	5588	5382
60°	5572	5319	5122
65°	5315	5053	4820
70°	4994	4725	4503
75°	4544	4355	4244
80°	4029	3911	3710
85°	3287	3124	2815

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6226 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	3.7
10°-20°	121.8	10.4
20°-30°	179.0	15.3
30°-40°	207.9	17.8
40°-50°	207.6	17.7
50°-60°	181.0	15.5
60°-70°	133.8	11.4
70°-80°	75.7	6.5
80°-90°	20.0	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°	344.0	29.4
0°-40°	551.9	47.2
0°-60°	940.5	80.4
0°-90°	1170.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1170.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	460	458	453	457	456	44
15°	438	435	429	431	429	123
25°	396	393	385	386	385	182
35°	342	337	330	328	326	213
45°	278	275	268	264	262	215
55°	210	208	202	197	195	188
65°	142	139	135	131	129	140
75°	74	73	71	68	69	79
85°	18	18	17	16	16	21
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.9	459.9	459.9	459.9	459.9
2.5°	462.5	460.3	455.5	459.9	459.0
5°	459.9	458.1	453.2	456.8	455.9
7.5°	456.8	454.1	449.3	452.8	451.9
10°	451.9	448.8	443.5	447.1	445.7
12.5°	445.3	442.6	437.3	439.5	438.7
15°	437.8	435.1	429.4	431.1	428.9
17.5°	428.5	425.8	420.1	422.3	420.1
20°	418.3	415.7	409.5	410.8	409.0
22.5°	408.1	404.2	398.4	398.4	397.5
25°	396.2	392.7	385.1	386.0	385.1
27.5°	382.9	379.8	374.1	372.8	370.6
30°	369.7	366.1	359.5	358.2	356.4
32.5°	355.5	352.9	345.8	343.1	341.4
35°	341.8	337.4	330.3	327.7	325.5
37.5°	326.3	322.4	315.3	312.2	310.0
40°	310.4	306.9	299.8	295.8	294.1
42.5°	294.9	291.4	284.3	279.9	277.3
45°	278.1	275.0	268.4	263.5	261.8
47.5°	261.8	258.7	251.6	246.7	244.1
50°	244.5	242.3	236.1	229.9	227.7
52.5°	227.7	224.6	218.9	214.0	210.9
55°	210.5	207.8	202.5	197.2	195.0
57.5°	193.2	191.0	185.3	180.0	178.2
60°	176.0	174.2	168.0	163.2	161.8
62.5°	159.2	156.1	151.7	147.2	145.5
65°	141.9	139.3	134.9	130.9	128.7
67.5°	124.3	122.0	118.1	115.0	113.2
70°	107.9	106.1	102.1	99.1	97.3
72.5°	91.1	89.3	87.1	84.0	82.7
75°	74.3	73.4	71.2	68.5	69.4
77.5°	59.3	57.5	56.6	55.3	53.9
80°	44.2	43.8	42.9	41.6	40.7
82.5°	30.1	30.1	29.6	27.9	27.9
85°	18.1	17.7	17.2	15.9	15.5
87.5°	8.0	7.1	6.2	4.9	4.4
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	18.18	19.79	18.54	20.10	20.42	17.74	19.35	18.10	19.66	19.98
	3H	19.93	21.38	20.31	21.71	22.07	19.44	20.89	19.82	21.22	21.58
	4H	20.57	21.94	20.97	22.29	22.67	20.08	21.45	20.48	21.80	22.17
	6H	21.04	22.31	21.46	22.68	23.07	20.54	21.81	20.95	22.18	22.57
	8H	21.19	22.40	21.61	22.79	23.19	20.69	21.90	21.11	22.29	22.68
	12H	21.28	22.44	21.71	22.82	23.25	20.77	21.93	21.20	22.31	22.74
4H	2H	18.74	20.11	19.14	20.46	20.83	18.39	19.76	18.79	20.10	20.48
	3H	20.71	21.86	21.12	22.26	22.66	20.31	21.46	20.72	21.85	22.25
	4H	21.49	22.53	21.92	22.94	23.38	21.07	22.10	21.50	22.52	22.95
	6H	22.09	22.99	22.54	23.43	23.89	21.66	22.56	22.11	23.00	23.46
	8H	22.28	23.12	22.74	23.57	24.03	21.84	22.69	22.30	23.13	23.59
	12H	22.41	23.17	22.89	23.65	24.11	21.96	22.72	22.44	23.19	23.66
8H	4H	21.76	22.61	22.22	23.05	23.52	21.39	22.24	21.85	22.68	23.15
	6H	22.48	23.18	22.97	23.67	24.15	22.10	22.80	22.59	23.29	23.76
	8H	22.74	23.37	23.25	23.88	24.36	22.35	22.98	22.86	23.49	23.97
	12H	22.94	23.50	23.45	23.99	24.55	22.53	23.08	23.03	23.57	24.14
12H	4H	21.79	22.55	22.27	23.03	23.50	21.43	22.19	21.91	22.66	23.13
	6H	22.52	23.16	23.03	23.66	24.15	22.16	22.79	22.67	23.30	23.78
	8H	22.84	23.40	23.35	23.89	24.45	22.46	23.02	22.97	23.51	24.07