

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: P997664

Luminaire Tested: SA2XXDP-B865DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997664
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDP-B865DB2750-4F0-XX-W2A-D_3500K
Description: Define 2 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

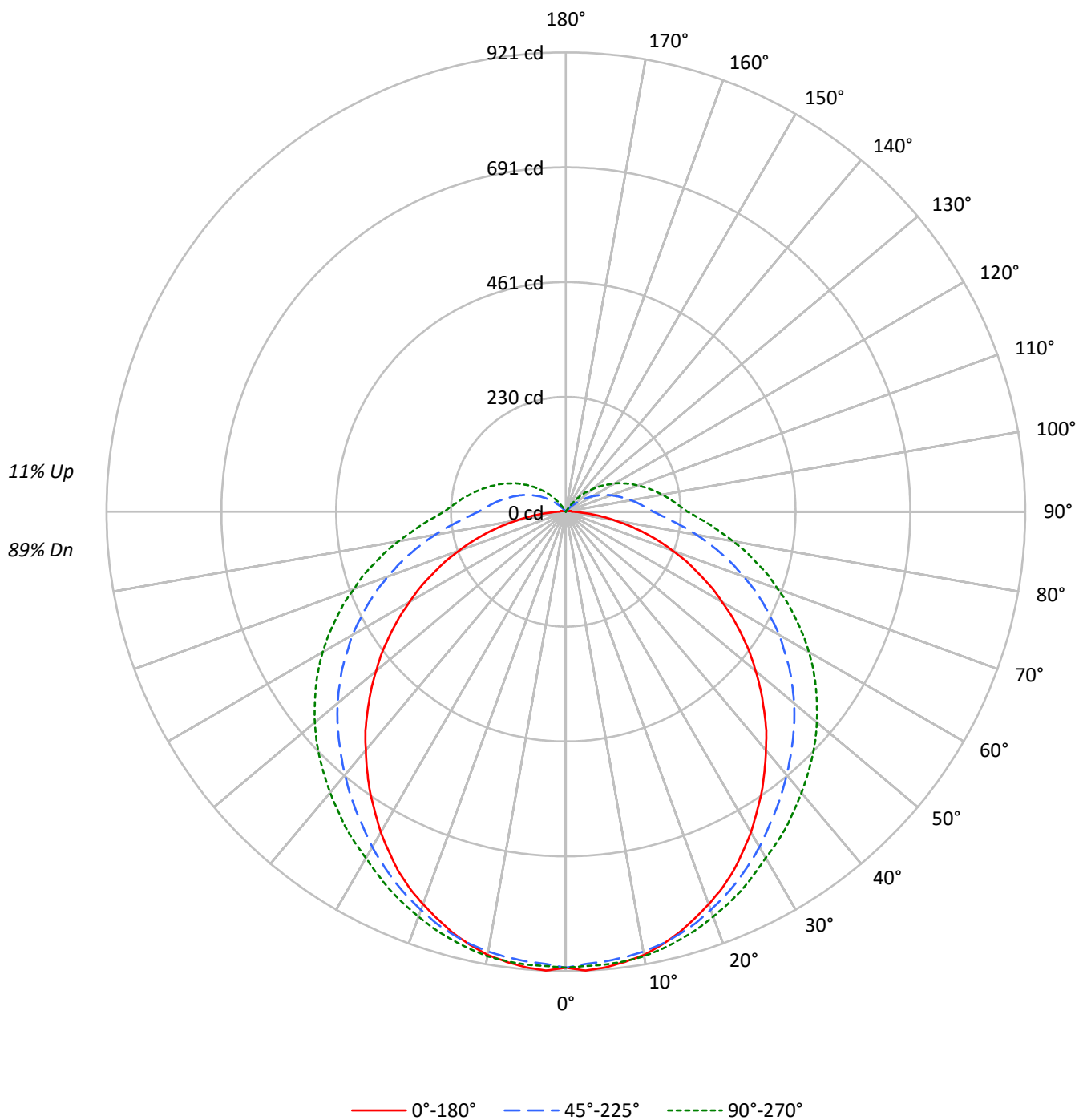
Lumens per Lamp: N/A
Luminaire Lumens: 3488.0 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 46.8
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	30	10
RCR																	
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14470	14470	14470
5°	14568	14379	14484
10°	14501	14395	14545
15°	14329	14372	14546
20°	14104	14305	14551
25°	13883	14254	14601
30°	13561	14189	14650
35°	13235	14157	14899
40°	12894	14235	15194
45°	12574	14414	15630
50°	12234	14714	16182
55°	11883	15101	16892
60°	11451	15646	17827
65°	11016	16375	19054
70°	10548	17536	20910
75°	9969	19687	24225
80°	9061	24275	31039
85°	8663	38976	52452

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 96167 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	2.5
10°-20°	248.5	7.1
20°-30°	376.6	10.8
30°-40°	458.6	13.1
40°-50°	493.4	14.1
50°-60°	479.2	13.7
60°-70°	418.5	12.0
70°-80°	322.1	9.2
80°-90°	215.7	6.2
90°-100°	148.8	4.3
100°-110°	108.7	3.1
110°-120°	71.8	2.1
120°-130°	40.0	1.1
130°-140°	16.8	0.5
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	711.8	20.4
0°-40°	1170.4	33.6
0°-60°	2142.9	61.4
0°-90°	3099.1	88.9
90°-120°	329.3	9.4
90°-150°	388.8	11.1
90°-180°	389.0	11.2
0°-180°	3488.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	917	913	905	913	912	87
15°	874	877	877	889	888	246
25°	795	804	816	832	836	366
35°	685	708	733	762	771	428
45°	562	598	644	685	698	434
55°	431	478	547	595	612	385
65°	294	359	437	492	509	292
75°	163	237	322	379	396	172
85°	48	130	215	270	289	50
90°	13	90	175	228	244	9
95°	11	73	152	203	219	8
105°	7	45	114	160	175	8
115°	5	20	80	119	134	5
125°	3	3	45	81	93	3
135°	1	1	15	42	53	1
145°	0	0	0	8	15	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	914.1	914.1	914.1	914.1	914.1
2.5°	920.8	916.8	907.5	914.1	911.5
5°	916.8	912.8	904.9	912.8	911.5
7.5°	910.2	907.5	900.9	910.2	908.8
10°	902.2	899.6	895.6	906.2	904.9
12.5°	889.0	890.3	887.6	898.2	896.9
15°	874.4	877.0	877.0	889.0	887.6
17.5°	855.8	861.1	865.1	877.0	877.0
20°	837.3	843.9	849.2	863.8	863.8
22.5°	817.4	825.4	833.3	847.9	850.5
25°	794.9	804.2	816.1	832.0	836.0
27.5°	768.4	783.0	796.2	816.1	818.7
30°	741.9	759.1	776.3	797.5	801.5
32.5°	712.8	732.6	753.8	779.0	786.9
35°	684.9	707.5	732.6	761.8	771.0
37.5°	654.5	679.6	711.4	743.2	752.5
40°	624.0	653.1	688.9	723.4	735.3
42.5°	594.8	624.0	666.4	704.8	716.7
45°	561.7	597.5	643.9	684.9	698.2
47.5°	529.9	568.4	621.3	663.7	678.3
50°	496.8	537.9	597.5	642.5	657.1
52.5°	465.0	508.7	572.3	618.7	634.6
55°	430.6	478.3	547.2	594.8	612.1
57.5°	397.4	450.4	519.3	571.0	588.2
60°	361.7	418.6	494.2	544.5	563.1
62.5°	329.9	389.5	465.0	519.3	536.6
65°	294.1	359.0	437.2	491.5	508.7
67.5°	262.3	329.9	409.4	463.7	482.2
70°	227.9	296.8	378.9	435.9	451.8
72.5°	196.1	267.6	351.1	406.7	426.6
75°	163.0	237.1	321.9	378.9	396.1
77.5°	131.2	208.0	294.1	351.1	369.6
80°	99.4	180.2	266.3	321.9	340.5
82.5°	72.9	152.4	239.8	295.4	312.7
85°	47.7	129.8	214.6	270.3	288.8
87.5°	29.1	108.6	193.4	247.7	265.0
90°	13.2	90.1	174.9	227.9	243.8
92.5°	11.9	82.1	163.0	214.6	230.5
95°	10.6	72.9	152.4	202.7	218.6
97.5°	9.3	66.2	143.1	192.1	208.0
100°	9.3	58.3	132.5	181.5	196.1
102.5°	7.9	51.7	123.2	170.9	185.5
105°	6.6	45.0	113.9	160.3	174.9
107.5°	6.6	38.4	104.7	149.7	164.3
110°	5.3	31.8	96.7	139.1	153.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	26.5	87.4	129.8	144.4
115°	5.3	19.9	79.5	119.2	133.8
117.5°	4.0	14.6	70.2	110.0	123.2
120°	4.0	9.3	62.3	99.4	113.9
122.5°	4.0	5.3	54.3	90.1	102.0
125°	2.6	2.6	45.0	80.8	92.7
127.5°	2.6	1.3	37.1	70.2	82.1
130°	2.6	1.3	29.1	60.9	71.5
132.5°	2.6	1.3	21.2	51.7	62.3
135°	1.3	1.3	14.6	42.4	53.0
137.5°	1.3	1.3	7.9	33.1	42.4
140°	1.3	0.0	2.6	23.8	31.8
142.5°	1.3	0.0	0.0	15.9	22.5
145°	0.0	0.0	0.0	7.9	14.6
147.5°	0.0	0.0	0.0	1.3	5.3
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	19.67	21.15	20.20	21.68	22.26	21.53	23.01	22.05	23.53	24.11
	3H	21.55	22.91	22.09	23.45	24.06	24.18	25.54	24.72	26.08	26.69
	4H	22.28	23.57	22.84	24.12	24.75	25.49	26.78	26.05	27.33	27.96
	6H	22.85	24.04	23.42	24.61	25.25	26.87	28.07	27.44	28.63	29.28
	8H	23.04	24.19	23.62	24.78	25.43	27.58	28.73	28.17	29.32	29.97
	12H	23.19	24.29	23.78	24.87	25.55	28.40	29.51	28.99	30.09	30.77
4H	2H	20.80	22.08	21.36	22.64	23.26	22.15	23.44	22.71	23.99	24.62
	3H	22.98	24.08	23.55	24.67	25.32	25.09	26.19	25.66	26.78	27.43
	4H	23.89	24.90	24.48	25.50	26.19	26.61	27.62	27.20	28.22	28.90
	6H	24.64	25.54	25.25	26.17	26.86	28.21	29.10	28.81	29.73	30.42
	8H	24.92	25.77	25.54	26.39	27.10	29.04	29.89	29.66	30.51	31.22
	12H	25.15	25.92	25.79	26.57	27.28	30.00	30.77	30.64	31.42	32.13
8H	4H	24.82	25.67	25.44	26.29	27.00	27.02	27.86	27.63	28.48	29.19
	6H	25.88	26.60	26.53	27.27	27.98	28.87	29.59	29.52	30.25	30.97
	8H	26.34	26.99	27.00	27.66	28.39	29.91	30.56	30.57	31.23	31.96
	12H	26.75	27.33	27.41	27.99	28.78	31.12	31.70	31.78	32.36	33.15
12H	4H	25.09	25.86	25.73	26.51	27.22	27.07	27.84	27.71	28.49	29.20
	6H	26.32	26.96	26.97	27.64	28.36	29.00	29.65	29.66	30.32	31.05
	8H	26.94	27.52	27.60	28.18	28.96	30.15	30.73	30.81	31.39	32.18