

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: P997663

Luminaire Tested: SA2XXDP-B865DB2750-4F0-XX-W2A-D_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997663
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_3000K
Description: Define 2 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

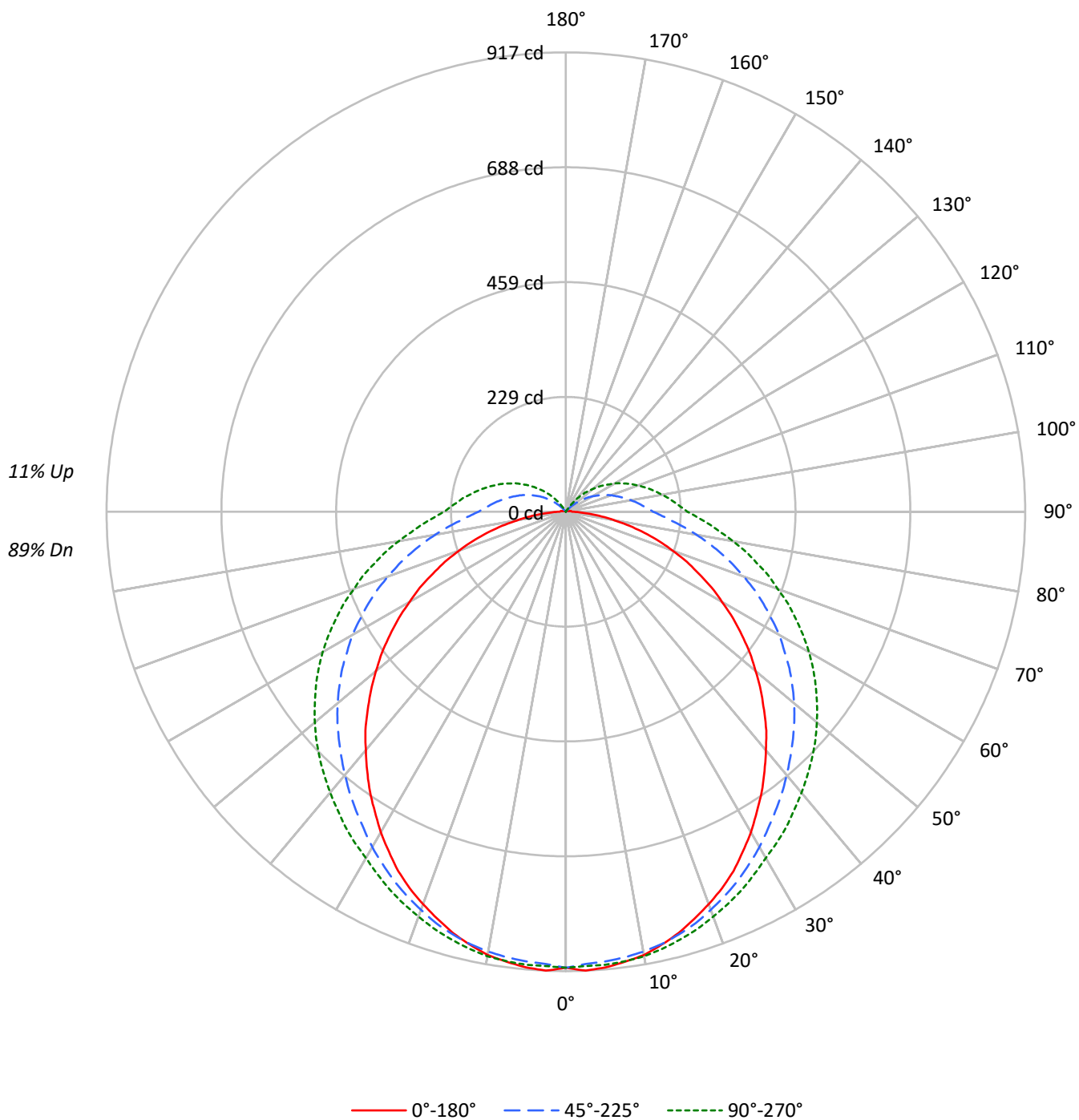
Lumens per Lamp: N/A
Luminaire Lumens: 3473.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	14408	14408	14408
5°	14504	14317	14422
10°	14439	14333	14482
15°	14267	14311	14483
20°	14044	14244	14489
25°	13824	14193	14538
30°	13502	14129	14588
35°	13179	14097	14835
40°	12838	14173	15128
45°	12520	14352	15563
50°	12182	14650	16113
55°	11831	15035	16818
60°	11400	15576	17748
65°	10967	16304	18971
70°	10501	17462	20818
75°	9926	19602	24121
80°	9015	24166	30902
85°	8627	38812	52234

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 95732 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	2.5
10°-20°	247.5	7.1
20°-30°	375.0	10.8
30°-40°	456.6	13.1
40°-50°	491.3	14.1
50°-60°	477.1	13.7
60°-70°	416.7	12.0
70°-80°	320.7	9.2
80°-90°	214.8	6.2
90°-100°	148.2	4.3
100°-110°	108.2	3.1
110°-120°	71.4	2.1
120°-130°	39.8	1.1
130°-140°	16.7	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°	708.7	20.4
0°-40°	1165.3	33.6
0°-60°	2133.7	61.4
0°-90°	3085.8	88.9
90°-120°	327.8	9.4
90°-150°	387.2	11.1
90°-180°	387.0	11.1
0°-180°	3473.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	913	909	901	909	908	87
15°	871	873	873	885	884	245
25°	792	801	813	828	832	364
35°	682	704	730	758	768	426
45°	559	595	641	682	695	432
55°	429	476	545	592	609	383
65°	293	358	435	489	506	291
75°	162	236	320	377	394	172
85°	48	129	214	269	288	50
90°	13	90	174	227	243	9
95°	11	73	152	202	218	8
105°	7	45	113	160	174	8
115°	5	20	79	119	133	5
125°	3	3	45	80	92	3
135°	1	1	14	42	53	1
145°	0	0	0	8	14	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°	910.2	910.2	910.2	910.2	910.2
2.5°	916.8	912.8	903.6	910.2	907.6
5°	912.8	908.9	901.0	908.9	907.6
7.5°	906.2	903.6	897.0	906.2	904.9
10°	898.3	895.7	891.7	902.3	901.0
12.5°	885.1	886.5	883.8	894.4	893.1
15°	870.6	873.3	873.3	885.1	883.8
17.5°	852.2	857.4	861.4	873.3	873.3
20°	833.7	840.3	845.6	860.1	860.1
22.5°	813.9	821.8	829.7	844.2	846.9
25°	791.5	800.7	812.6	828.4	832.4
27.5°	765.1	779.6	792.8	812.6	815.2
30°	738.7	755.9	773.0	794.1	798.1
32.5°	709.7	729.5	750.6	775.6	783.6
35°	682.0	704.4	729.5	758.5	767.7
37.5°	651.6	676.7	708.4	740.0	749.3
40°	621.3	650.3	685.9	720.2	732.1
42.5°	592.3	621.3	663.5	701.8	713.6
45°	559.3	594.9	641.1	682.0	695.2
47.5°	527.7	565.9	618.7	660.9	675.4
50°	494.7	535.6	594.9	639.8	654.3
52.5°	463.0	506.5	569.9	616.0	631.9
55°	428.7	476.2	544.8	592.3	609.4
57.5°	395.7	448.5	517.1	568.5	585.7
60°	360.1	416.8	492.0	542.2	560.6
62.5°	328.5	387.8	463.0	517.1	534.2
65°	292.8	357.5	435.3	489.4	506.5
67.5°	261.2	328.5	407.6	461.7	480.2
70°	226.9	295.5	377.3	434.0	449.8
72.5°	195.2	266.5	349.6	405.0	424.8
75°	162.3	236.1	320.5	377.3	394.4
77.5°	130.6	207.1	292.8	349.6	368.0
80°	98.9	179.4	265.1	320.5	339.0
82.5°	72.6	151.7	238.8	294.2	311.3
85°	47.5	129.3	213.7	269.1	287.6
87.5°	29.0	108.2	192.6	246.7	263.8
90°	13.2	89.7	174.1	226.9	242.7
92.5°	11.9	81.8	162.3	213.7	229.5
95°	10.6	72.6	151.7	201.8	217.7
97.5°	9.2	66.0	142.5	191.3	207.1
100°	9.2	58.0	131.9	180.7	195.2
102.5°	7.9	51.4	122.7	170.2	184.7
105°	6.6	44.9	113.4	159.6	174.1
107.5°	6.6	38.3	104.2	149.1	163.6
110°	5.3	31.7	96.3	138.5	153.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	26.4	87.1	129.3	143.8
115°	5.3	19.8	79.1	118.7	133.2
117.5°	4.0	14.5	69.9	109.5	122.7
120°	4.0	9.2	62.0	98.9	113.4
122.5°	4.0	5.3	54.1	89.7	101.6
125°	2.6	2.6	44.9	80.5	92.3
127.5°	2.6	1.3	36.9	69.9	81.8
130°	2.6	1.3	29.0	60.7	71.2
132.5°	2.6	1.3	21.1	51.4	62.0
135°	1.3	1.3	14.5	42.2	52.8
137.5°	1.3	1.3	7.9	33.0	42.2
140°	1.3	0.0	2.6	23.7	31.7
142.5°	1.3	0.0	0.0	15.8	22.4
145°	0.0	0.0	0.0	7.9	14.5
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	19.66	21.14	20.19	21.67	22.25	21.51	22.99	22.04	23.52	24.10
	3H	21.54	22.89	22.08	23.43	24.05	24.17	25.52	24.71	26.06	26.68
	4H	22.27	23.56	22.83	24.11	24.74	25.48	26.76	26.03	27.31	27.94
	6H	22.83	24.03	23.40	24.59	25.24	26.85	28.05	27.42	28.61	29.26
	8H	23.02	24.17	23.61	24.76	25.41	27.57	28.72	28.15	29.31	29.96
	12H	23.17	24.28	23.76	24.86	25.54	28.39	29.49	28.98	30.07	30.75
4H	2H	20.78	22.07	21.34	22.62	23.25	22.14	23.42	22.70	23.98	24.60
	3H	22.96	24.06	23.53	24.65	25.31	25.07	26.18	25.65	26.77	27.42
	4H	23.88	24.89	24.47	25.49	26.17	26.59	27.60	27.18	28.21	28.89
	6H	24.63	25.52	25.24	26.15	26.84	28.19	29.09	28.80	29.71	30.40
	8H	24.91	25.75	25.52	26.38	27.08	29.03	29.87	29.64	30.50	31.20
	12H	25.13	25.90	25.77	26.55	27.27	29.99	30.76	30.62	31.41	32.12
8H	4H	24.81	25.65	25.42	26.28	26.98	27.00	27.84	27.62	28.47	29.18
	6H	25.87	26.59	26.51	27.25	27.96	28.86	29.57	29.50	30.24	30.95
	8H	26.33	26.98	26.98	27.65	28.37	29.90	30.54	30.55	31.22	31.94
	12H	26.73	27.31	27.39	27.97	28.76	31.10	31.68	31.76	32.35	33.13
12H	4H	25.07	25.84	25.71	26.49	27.21	27.05	27.82	27.69	28.47	29.19
	6H	26.30	26.95	26.96	27.62	28.35	28.98	29.63	29.64	30.31	31.03
	8H	26.92	27.50	27.58	28.16	28.95	30.14	30.72	30.80	31.38	32.17