

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: P997669

Luminaire Tested: SA2XXDP-B865DB2750-4F0-XX-W2A-F_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997669
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-B865DB2750-4F0-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

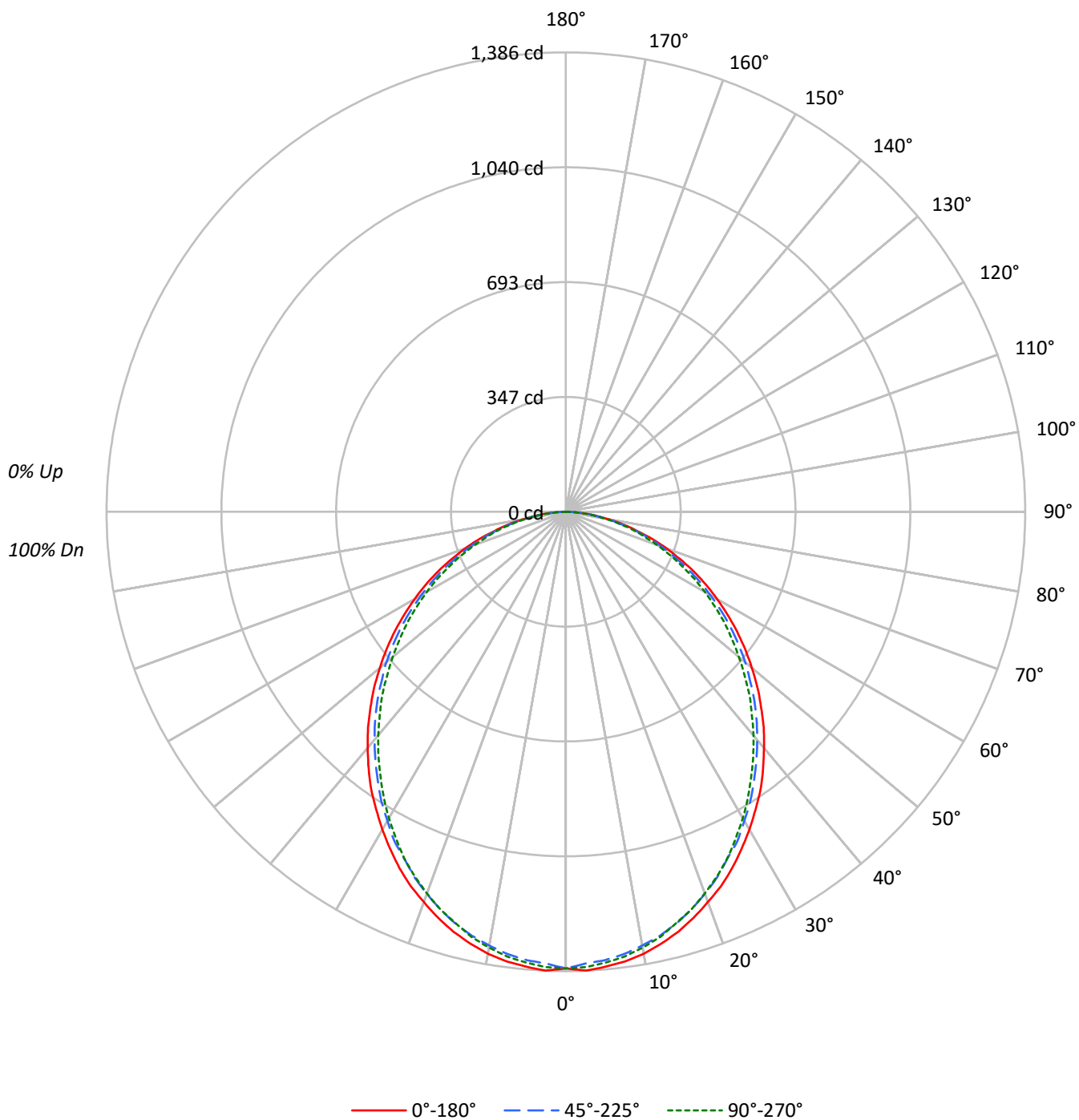
Lumens per Lamp: N/A
Luminaire Lumens: 3505.0 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P997669

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-F_3500K

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°	21808	21808	21808
5°	21891	21575	21701
10°	21760	21357	21463
15°	21491	21079	21057
20°	21109	20664	20640
25°	20730	20152	20152
30°	20241	19685	19516
35°	19788	19121	18841
40°	19215	18558	18203
45°	18652	18001	17555
50°	18039	17420	16800
55°	17400	16743	16122
60°	16690	15937	15348
65°	15926	15132	14439
70°	14958	14162	13486
75°	13608	13045	12721
80°	12078	11714	11112
85°	9862	9390	8427

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18652 cd/sqm

TEST NUMBER: P997669

CATALOG NUMBER: SA2XXDP-B865DB2750-4F0-XX-W2A-F_3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.7	3.7
10°-20°	364.8	10.4
20°-30°	536.1	15.3
30°-40°	622.7	17.8
40°-50°	621.9	17.7
50°-60°	542.3	15.5
60°-70°	400.8	11.4
70°-80°	226.8	6.5
80°-90°	59.9	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°	1030.6	29.4
0°-40°	1653.3	47.2
0°-60°	2817.5	80.4
0°-90°	3505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1378	1378	1378	1378	1378	
5°	1378	1372	1358	1368	1366	131
15°	1311	1304	1286	1292	1285	369
25°	1187	1176	1154	1156	1154	546
35°	1024	1011	990	982	975	639
45°	833	824	804	790	784	643
55°	630	623	607	591	584	564
65°	425	417	404	392	386	420
75°	222	220	213	205	208	237
85°	54	53	52	48	46	64
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1377.7	1377.7	1377.7	1377.7	1377.7
2.5°	1385.6	1379.0	1364.4	1377.7	1375.0
5°	1377.7	1372.4	1357.8	1368.4	1365.7
7.5°	1368.4	1360.4	1345.9	1356.5	1353.8
10°	1353.8	1344.5	1328.7	1339.2	1335.3
12.5°	1334.0	1326.0	1310.1	1316.7	1314.1
15°	1311.4	1303.5	1286.3	1291.6	1284.9
17.5°	1283.6	1275.7	1258.4	1265.1	1258.4
20°	1253.1	1245.2	1226.7	1230.6	1225.3
22.5°	1222.7	1210.8	1193.5	1193.5	1190.9
25°	1186.9	1176.3	1153.8	1156.4	1153.8
27.5°	1147.2	1137.9	1120.7	1116.7	1110.1
30°	1107.4	1096.8	1077.0	1073.0	1067.7
32.5°	1065.0	1057.1	1035.9	1028.0	1022.7
35°	1024.0	1010.7	989.5	981.6	975.0
37.5°	977.6	965.7	944.5	935.2	928.6
40°	929.9	919.3	898.1	886.2	880.9
42.5°	883.6	873.0	851.8	838.5	830.6
45°	833.2	823.9	804.1	789.5	784.2
47.5°	784.2	774.9	753.7	739.2	731.2
50°	732.5	725.9	707.4	688.8	682.2
52.5°	682.2	672.9	655.7	641.1	631.9
55°	630.5	622.6	606.7	590.8	584.2
57.5°	578.9	572.3	555.0	539.1	533.8
60°	527.2	521.9	503.4	488.8	484.8
62.5°	476.9	467.6	454.4	441.1	435.8
65°	425.2	417.3	404.0	392.1	385.5
67.5°	372.2	365.6	353.7	344.4	339.1
70°	323.2	317.9	306.0	296.7	291.4
72.5°	272.9	267.6	261.0	251.7	247.7
75°	222.5	219.9	213.3	205.3	208.0
77.5°	177.5	172.2	169.6	165.6	161.6
80°	132.5	131.1	128.5	124.5	121.9
82.5°	90.1	90.1	88.8	83.5	83.5
85°	54.3	53.0	51.7	47.7	46.4
87.5°	23.8	21.2	18.5	14.6	13.2
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	21.99	23.60	22.36	23.92	24.23	21.55	23.16	21.91	23.47	23.79
	3H	23.74	25.20	24.12	25.52	25.88	23.25	24.70	23.63	25.03	25.39
	4H	24.39	25.76	24.79	26.10	26.48	23.89	25.26	24.29	25.61	25.99
	6H	24.86	26.13	25.27	26.49	26.88	24.36	25.62	24.77	25.99	26.38
	8H	25.00	26.21	25.42	26.60	27.00	24.50	25.71	24.92	26.10	26.50
	12H	25.09	26.25	25.52	26.63	27.06	24.58	25.74	25.01	26.12	26.55
4H	2H	22.55	23.92	22.95	24.27	24.64	22.20	23.57	22.60	23.92	24.29
	3H	24.53	25.67	24.94	26.07	26.47	24.12	25.27	24.53	25.66	26.06
	4H	25.30	26.34	25.73	26.75	27.19	24.88	25.91	25.31	26.33	26.76
	6H	25.90	26.80	26.35	27.25	27.70	25.47	26.37	25.92	26.81	27.27
	8H	26.09	26.94	26.55	27.38	27.84	25.65	26.50	26.11	26.94	27.41
	12H	26.22	26.98	26.70	27.46	27.93	25.77	26.53	26.25	27.00	27.47
8H	4H	25.58	26.42	26.04	26.87	27.33	25.20	26.05	25.66	26.49	26.96
	6H	26.29	26.99	26.78	27.48	27.96	25.91	26.61	26.40	27.10	27.58
	8H	26.55	27.18	27.06	27.69	28.17	26.16	26.79	26.67	27.30	27.78
	12H	26.75	27.31	27.26	27.80	28.36	26.34	26.89	26.84	27.39	27.95
12H	4H	25.60	26.36	26.08	26.84	27.31	25.24	26.00	25.72	26.47	26.94
	6H	26.34	26.97	26.85	27.47	27.96	25.97	26.60	26.48	27.11	27.59
	8H	26.65	27.21	27.16	27.70	28.26	26.27	26.83	26.78	27.32	27.88