

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: P997680

Luminaire Tested: SA2XXDP-B865DB40-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997680
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-B865DB40-4F0-XX-W2A-F
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

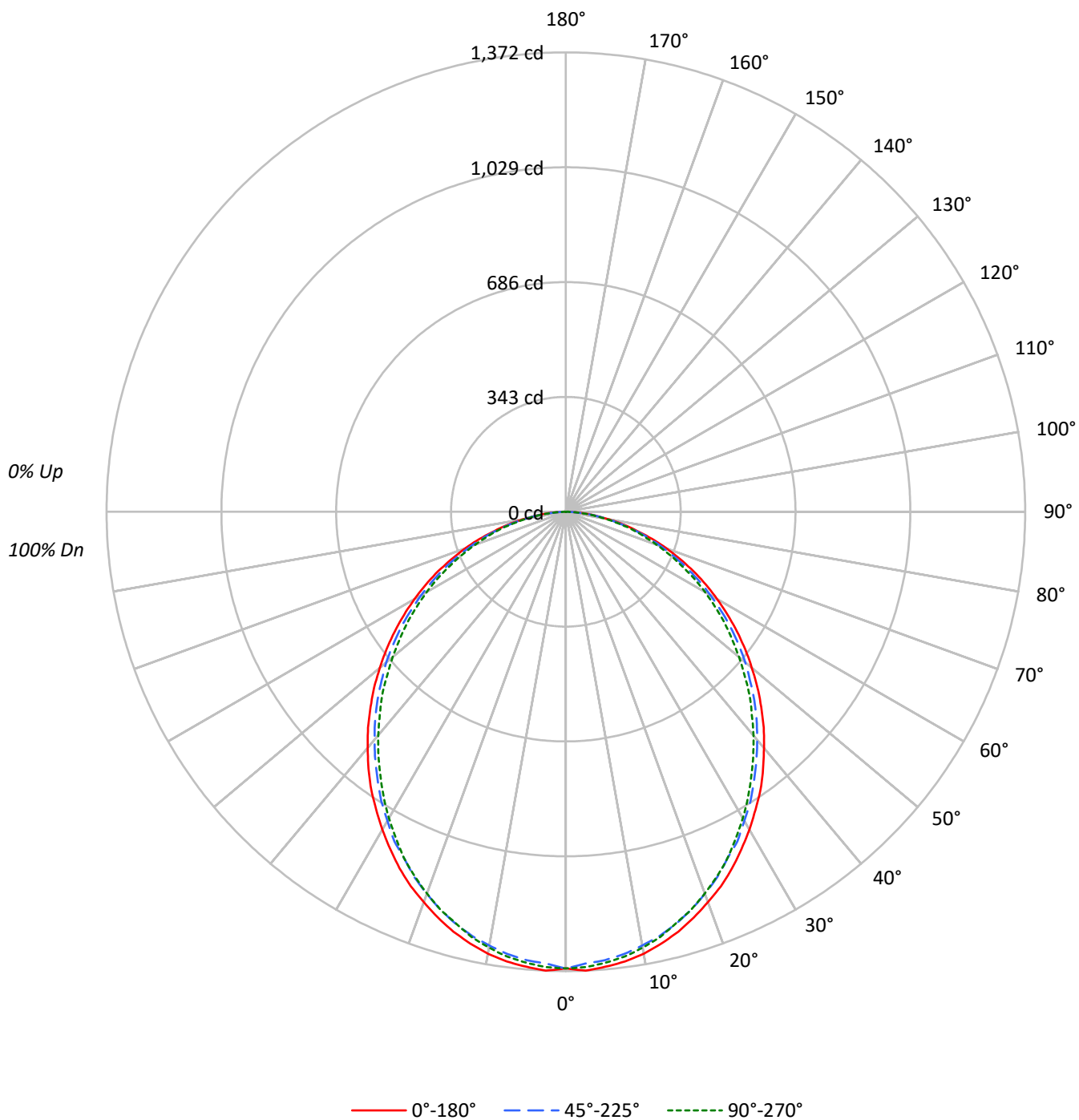
Lumens per Lamp: N/A
Luminaire Lumens: 3470.0 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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: P997680

CATALOG NUMBER: SA2XXDP-B865DB40-4F0-XX-W2A-F

Luminous Intensity Polar Plot



TEST NUMBER: P997680

CATALOG NUMBER: SA2XXDP-B865DB40-4F0-XX-W2A-F

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°	21590	21590	21590
5°	21672	21359	21485
10°	21543	21143	21248
15°	21276	20868	20847
20°	20898	20457	20435
25°	20524	19951	19951
30°	20040	19488	19320
35°	19591	18932	18652
40°	19023	18374	18021
45°	18466	17821	17380
50°	17859	17246	16632
55°	17229	16575	15960
60°	16526	15779	15196
65°	15769	14982	14293
70°	14810	14019	13352
75°	13473	12911	12593
80°	11951	11595	11003
85°	9771	9281	8336

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18466 cd/sqm

TEST NUMBER: P997680

CATALOG NUMBER: SA2XXDP-B865DB40-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.4	3.7
10°-20°	361.2	10.4
20°-30°	530.8	15.3
30°-40°	616.5	17.8
40°-50°	615.7	17.7
50°-60°	536.9	15.5
60°-70°	396.9	11.4
70°-80°	224.5	6.5
80°-90°	59.3	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°	1020.3	29.4
0°-40°	1636.8	47.2
0°-60°	2789.4	80.4
0°-90°	3470.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3470.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1364	1364	1364	1364	1364	
5°	1364	1359	1344	1355	1352	129
15°	1298	1290	1273	1279	1272	366
25°	1175	1165	1142	1145	1142	541
35°	1014	1001	980	972	965	633
45°	825	816	796	782	776	637
55°	624	616	601	585	578	558
65°	421	413	400	388	382	416
75°	220	218	211	203	206	235
85°	54	52	51	47	46	63
90°	0	0	0	0	0	

TEST NUMBER: P997680

CATALOG NUMBER: SA2XXDP-B865DB40-4F0-XX-W2A-F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1363.9	1363.9	1363.9	1363.9	1363.9
2.5°	1371.8	1365.2	1350.8	1363.9	1361.3
5°	1363.9	1358.7	1344.2	1354.7	1352.1
7.5°	1354.7	1346.9	1332.4	1342.9	1340.3
10°	1340.3	1331.1	1315.4	1325.9	1321.9
12.5°	1320.6	1312.8	1297.0	1303.6	1301.0
15°	1298.3	1290.5	1273.4	1278.7	1272.1
17.5°	1270.8	1262.9	1245.9	1252.4	1245.9
20°	1240.6	1232.8	1214.4	1218.3	1213.1
22.5°	1210.5	1198.7	1181.6	1181.6	1179.0
25°	1175.1	1164.6	1142.3	1144.9	1142.3
27.5°	1135.7	1126.5	1109.5	1105.6	1099.0
30°	1096.4	1085.9	1066.2	1062.3	1057.0
32.5°	1054.4	1046.5	1025.6	1017.7	1012.4
35°	1013.8	1000.6	979.7	971.8	965.2
37.5°	967.9	956.0	935.1	925.9	919.3
40°	920.6	910.1	889.2	877.4	872.1
42.5°	874.7	864.2	843.3	830.1	822.3
45°	824.9	815.7	796.1	781.6	776.4
47.5°	776.4	767.2	746.2	731.8	723.9
50°	725.2	718.7	700.3	682.0	675.4
52.5°	675.4	666.2	649.2	634.7	625.6
55°	624.3	616.4	600.6	584.9	578.3
57.5°	573.1	566.5	549.5	533.8	528.5
60°	522.0	516.7	498.4	483.9	480.0
62.5°	472.1	462.9	449.8	436.7	431.5
65°	421.0	413.1	400.0	388.2	381.6
67.5°	368.5	362.0	350.2	341.0	335.7
70°	320.0	314.7	302.9	293.8	288.5
72.5°	270.2	264.9	258.4	249.2	245.2
75°	220.3	217.7	211.1	203.3	205.9
77.5°	175.7	170.5	167.9	163.9	160.0
80°	131.1	129.8	127.2	123.3	120.7
82.5°	89.2	89.2	87.9	82.6	82.6
85°	53.8	52.5	51.1	47.2	45.9
87.5°	23.6	21.0	18.4	14.4	13.1
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P997680

CATALOG NUMBER: SA2XXDP-B865DB40-4F0-XX-W2A-F

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	21.96	23.57	22.32	23.88	24.19	21.51	23.12	21.88	23.44	23.75
	3H	23.71	25.16	24.08	25.49	25.85	23.22	24.67	23.59	25.00	25.36
	4H	24.35	25.72	24.75	26.07	26.45	23.86	25.23	24.26	25.57	25.95
	6H	24.82	26.09	25.23	26.45	26.85	24.32	25.59	24.73	25.95	26.34
	8H	24.96	26.18	25.39	26.56	26.96	24.46	25.67	24.89	26.06	26.46
	12H	25.05	26.21	25.48	26.60	27.03	24.54	25.70	24.97	26.08	26.51
4H	2H	22.52	23.89	22.91	24.23	24.61	22.16	23.53	22.56	23.88	24.26
	3H	24.49	25.64	24.90	26.04	26.44	24.09	25.23	24.49	25.63	26.03
	4H	25.27	26.30	25.70	26.72	27.15	24.84	25.88	25.28	26.29	26.73
	6H	25.86	26.77	26.32	27.21	27.67	25.43	26.34	25.89	26.78	27.23
	8H	26.05	26.90	26.51	27.34	27.81	25.62	26.46	26.08	26.91	27.37
	12H	26.19	26.95	26.67	27.42	27.89	25.73	26.49	26.21	26.97	27.44
8H	4H	25.54	26.39	26.00	26.83	27.30	25.17	26.01	25.63	26.46	26.92
	6H	26.26	26.96	26.75	27.45	27.92	25.87	26.58	26.37	27.07	27.54
	8H	26.51	27.15	27.02	27.65	28.14	26.12	26.75	26.63	27.26	27.75
	12H	26.72	27.27	27.22	27.76	28.32	26.30	26.86	26.81	27.35	27.91
12H	4H	25.57	26.33	26.05	26.80	27.27	25.20	25.96	25.68	26.44	26.91
	6H	26.30	26.93	26.81	27.44	27.93	25.93	26.57	26.44	27.07	27.56
	8H	26.61	27.17	27.12	27.66	28.22	26.24	26.80	26.74	27.29	27.85