

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: P997656

Luminaire Tested: SA2XXDP-B865DB27-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997656
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-B865DB27-4F0-XX-W2A-F
Description: Define 2 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

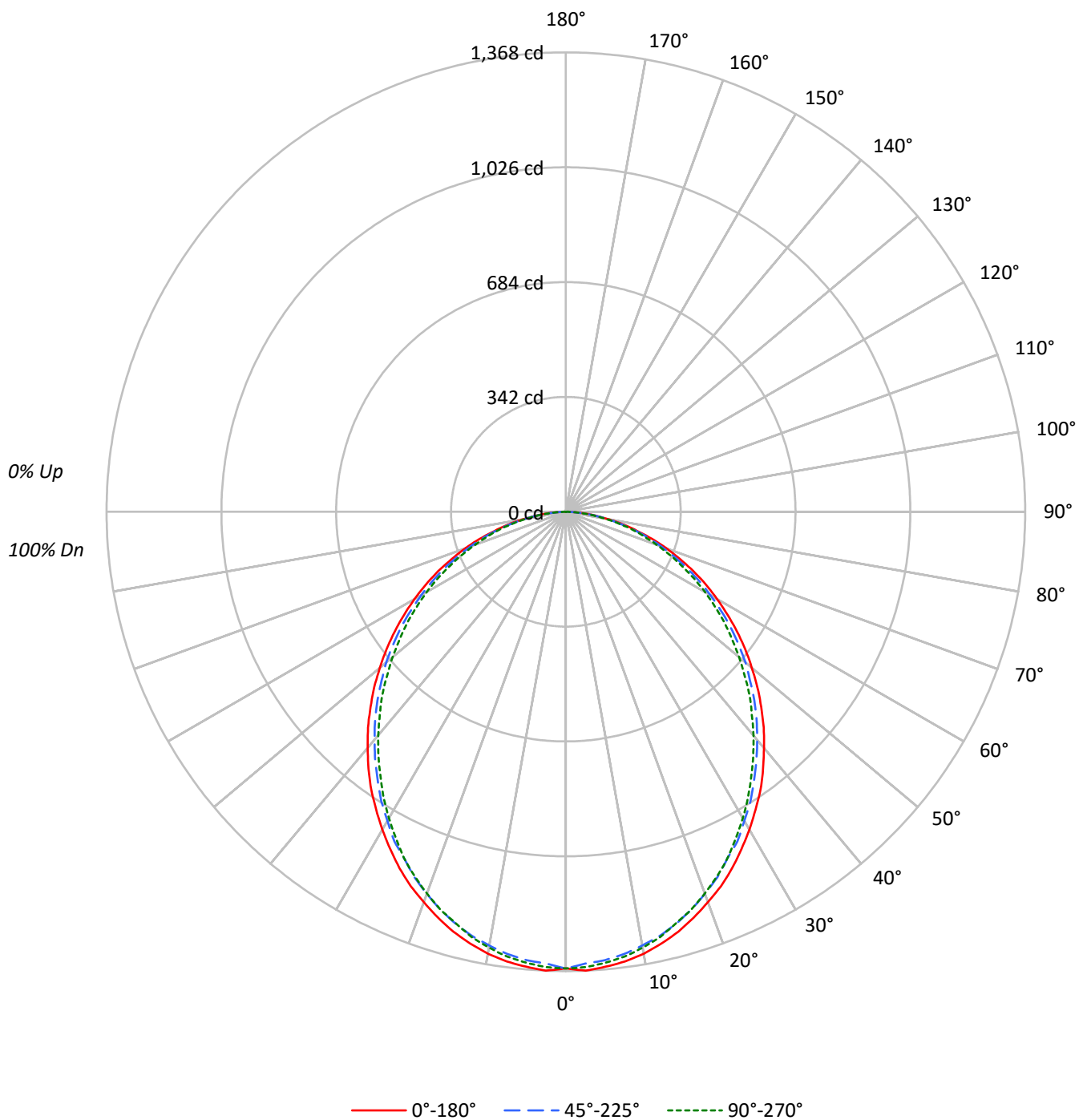
Lumens per Lamp: N/A
Luminaire Lumens: 3460.0 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	21528	21528	21528
5°	21610	21299	21423
10°	21481	21082	21186
15°	21215	20807	20786
20°	20839	20398	20376
25°	20465	19893	19893
30°	19982	19431	19265
35°	19533	18876	18597
40°	18969	18320	17969
45°	18412	17770	17329
50°	17807	17196	16586
55°	17179	16528	15915
60°	16478	15731	15152
65°	15724	14937	14252
70°	14769	13982	13315
75°	13437	12874	12556
80°	11923	11559	10966
85°	9735	9263	8318

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18412 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.0	3.7
10°-20°	360.1	10.4
20°-30°	529.2	15.3
30°-40°	614.7	17.8
40°-50°	613.9	17.7
50°-60°	535.3	15.5
60°-70°	395.7	11.4
70°-80°	223.9	6.5
80°-90°	59.1	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°	1017.4	29.4
0°-40°	1632.1	47.2
0°-60°	2781.3	80.4
0°-90°	3460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3460.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1360	1360	1360	1360	1360	
5°	1360	1355	1340	1351	1348	129
15°	1295	1287	1270	1275	1268	365
25°	1172	1161	1139	1142	1139	539
35°	1011	998	977	969	962	631
45°	822	813	794	779	774	635
55°	622	615	599	583	577	557
65°	420	412	399	387	380	415
75°	220	217	210	203	205	234
85°	54	52	51	47	46	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1360.0	1360.0	1360.0	1360.0	1360.0
2.5°	1367.8	1361.3	1346.9	1360.0	1357.4
5°	1360.0	1354.7	1340.4	1350.8	1348.2
7.5°	1350.8	1343.0	1328.6	1339.1	1336.4
10°	1336.4	1327.3	1311.6	1322.1	1318.1
12.5°	1316.8	1309.0	1293.3	1299.8	1297.2
15°	1294.6	1286.7	1269.7	1275.0	1268.4
17.5°	1267.1	1259.3	1242.3	1248.8	1242.3
20°	1237.1	1229.2	1210.9	1214.8	1209.6
22.5°	1207.0	1195.2	1178.2	1178.2	1175.6
25°	1171.7	1161.2	1139.0	1141.6	1139.0
27.5°	1132.4	1123.3	1106.3	1102.4	1095.8
30°	1093.2	1082.8	1063.1	1059.2	1054.0
32.5°	1051.4	1043.5	1022.6	1014.8	1009.5
35°	1010.8	997.8	976.8	969.0	962.4
37.5°	965.1	953.3	932.4	923.2	916.7
40°	918.0	907.5	886.6	874.8	869.6
42.5°	872.2	861.8	840.8	827.8	819.9
45°	822.5	813.4	793.8	779.4	774.1
47.5°	774.1	765.0	744.1	729.7	721.8
50°	723.1	716.6	698.3	680.0	673.5
52.5°	673.5	664.3	647.3	632.9	623.8
55°	622.5	614.6	598.9	583.2	576.7
57.5°	571.5	564.9	547.9	532.2	527.0
60°	520.5	515.2	496.9	482.5	478.6
62.5°	470.8	461.6	448.5	435.5	430.2
65°	419.8	411.9	398.8	387.1	380.5
67.5°	367.5	360.9	349.1	340.0	334.8
70°	319.1	313.8	302.1	292.9	287.7
72.5°	269.4	264.1	257.6	248.5	244.5
75°	219.7	217.1	210.5	202.7	205.3
77.5°	175.2	170.0	167.4	163.5	159.5
80°	130.8	129.5	126.8	122.9	120.3
82.5°	88.9	88.9	87.6	82.4	82.4
85°	53.6	52.3	51.0	47.1	45.8
87.5°	23.5	20.9	18.3	14.4	13.1
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	21.95	23.56	22.31	23.87	24.19	21.50	23.11	21.87	23.43	23.74
	3H	23.70	25.15	24.07	25.48	25.84	23.21	24.66	23.58	24.99	25.35
	4H	24.34	25.71	24.74	26.06	26.44	23.85	25.22	24.25	25.56	25.94
	6H	24.81	26.08	25.22	26.44	26.84	24.31	25.58	24.72	25.94	26.33
	8H	24.95	26.17	25.38	26.55	26.95	24.45	25.66	24.88	26.05	26.45
	12H	25.05	26.21	25.47	26.59	27.02	24.53	25.69	24.96	26.07	26.50
4H	2H	22.51	23.88	22.90	24.22	24.60	22.15	23.52	22.55	23.87	24.25
	3H	24.48	25.63	24.89	26.03	26.43	24.08	25.22	24.48	25.62	26.02
	4H	25.26	26.29	25.69	26.71	27.14	24.83	25.87	25.27	26.28	26.72
	6H	25.85	26.76	26.31	27.20	27.66	25.42	26.33	25.88	26.77	27.22
	8H	26.04	26.89	26.50	27.33	27.80	25.61	26.45	26.07	26.90	27.36
	12H	26.18	26.94	26.66	27.41	27.88	25.72	26.48	26.20	26.96	27.43
8H	4H	25.53	26.38	25.99	26.82	27.29	25.16	26.00	25.62	26.45	26.91
	6H	26.25	26.95	26.74	27.44	27.91	25.86	26.57	26.36	27.06	27.53
	8H	26.51	27.14	27.02	27.64	28.13	26.11	26.74	26.62	27.25	27.74
	12H	26.71	27.26	27.21	27.75	28.31	26.29	26.85	26.80	27.34	27.90
12H	4H	25.56	26.32	26.04	26.79	27.26	25.19	25.95	25.67	26.43	26.90
	6H	26.29	26.92	26.80	27.43	27.92	25.92	26.55	26.43	27.06	27.55
	8H	26.61	27.16	27.11	27.65	28.21	26.23	26.78	26.73	27.28	27.84