

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: P997683

Luminaire Tested: SA2XXDP-B865DB50-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997683
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-B865DB50-4F0-XX-W2A-F
Description: Define 2 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

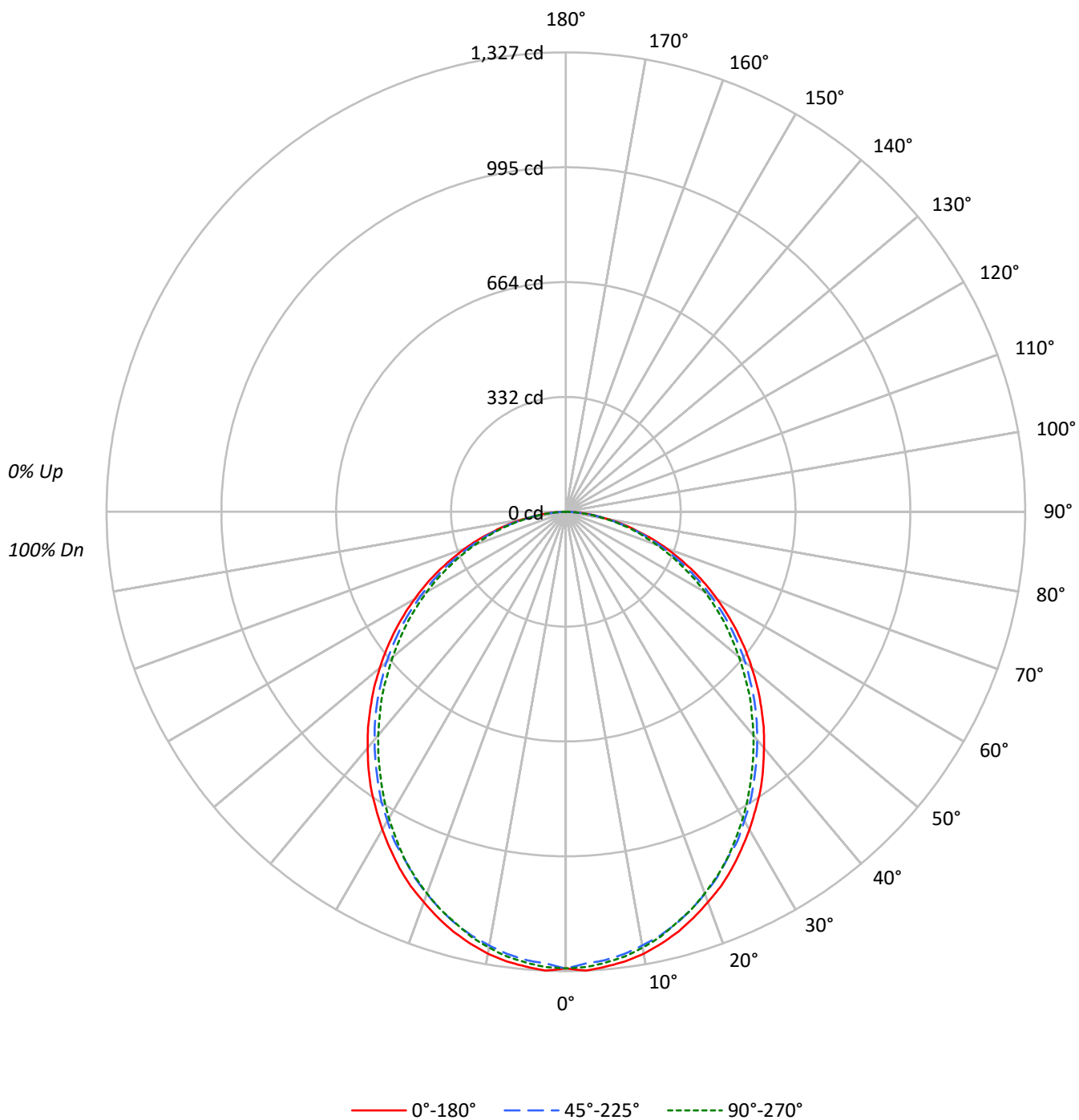
Lumens per Lamp: N/A
Luminaire Lumens: 3356.0 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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°	20880	20880	20880
5°	20960	20658	20779
10°	20836	20449	20550
15°	20578	20183	20162
20°	20213	19785	19763
25°	19850	19294	19294
30°	19382	18848	18686
35°	18945	18309	18039
40°	18399	17771	17430
45°	17860	17235	16810
50°	17273	16679	16086
55°	16661	16031	15435
60°	15981	15259	14696
65°	15248	14491	13825
70°	14324	13561	12913
75°	13033	12489	12177
80°	11559	11212	10638
85°	9444	8990	8064

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 17860 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.1	3.7
10°-20°	349.3	10.4
20°-30°	513.3	15.3
30°-40°	596.2	17.8
40°-50°	595.5	17.7
50°-60°	519.2	15.5
60°-70°	383.8	11.4
70°-80°	217.2	6.5
80°-90°	57.3	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°	986.8	29.4
0°-40°	1583.0	47.2
0°-60°	2697.7	80.4
0°-90°	3356.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3356.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1319	1319	1319	1319	1319	
5°	1319	1314	1300	1310	1308	125
15°	1256	1248	1232	1237	1230	354
25°	1136	1126	1105	1107	1105	523
35°	980	968	948	940	934	612
45°	798	789	770	756	751	616
55°	604	596	581	566	559	540
65°	407	400	387	375	369	403
75°	213	210	204	197	199	227
85°	52	51	50	46	44	61
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1319.1	1319.1	1319.1	1319.1	1319.1
2.5°	1326.7	1320.4	1306.4	1319.1	1316.6
5°	1319.1	1314.0	1300.1	1310.2	1307.7
7.5°	1310.2	1302.6	1288.7	1298.8	1296.3
10°	1296.3	1287.4	1272.2	1282.3	1278.5
12.5°	1277.2	1269.6	1254.4	1260.8	1258.2
15°	1255.7	1248.1	1231.6	1236.7	1230.3
17.5°	1229.0	1221.4	1204.9	1211.3	1204.9
20°	1199.9	1192.3	1174.5	1178.3	1173.2
22.5°	1170.7	1159.3	1142.8	1142.8	1140.3
25°	1136.5	1126.3	1104.7	1107.3	1104.7
27.5°	1098.4	1089.5	1073.0	1069.2	1062.9
30°	1060.4	1050.2	1031.2	1027.4	1022.3
32.5°	1019.8	1012.2	991.9	984.3	979.2
35°	980.4	967.8	947.5	939.9	933.5
37.5°	936.1	924.6	904.3	895.5	889.1
40°	890.4	880.2	860.0	848.5	843.5
42.5°	846.0	835.9	815.6	802.9	795.3
45°	797.8	788.9	769.9	755.9	750.9
47.5°	750.9	742.0	721.7	707.7	700.1
50°	701.4	695.1	677.3	659.5	653.2
52.5°	653.2	644.3	627.8	613.9	605.0
55°	603.7	596.1	580.9	565.7	559.3
57.5°	554.3	547.9	531.4	516.2	511.2
60°	504.8	499.7	482.0	468.0	464.2
62.5°	456.6	447.7	435.0	422.4	417.3
65°	407.1	399.5	386.9	375.4	369.1
67.5°	356.4	350.1	338.7	329.8	324.7
70°	309.5	304.4	293.0	284.1	279.0
72.5°	261.3	256.2	249.9	241.0	237.2
75°	213.1	210.5	204.2	196.6	199.1
77.5°	170.0	164.9	162.4	158.5	154.7
80°	126.8	125.6	123.0	119.2	116.7
82.5°	86.2	86.2	85.0	79.9	79.9
85°	52.0	50.7	49.5	45.7	44.4
87.5°	22.8	20.3	17.8	14.0	12.7
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	21.84	23.45	22.20	23.76	24.08	21.40	23.01	21.76	23.32	23.64
	3H	23.59	25.04	23.97	25.37	25.73	23.10	24.55	23.48	24.88	25.24
	4H	24.24	25.61	24.63	25.95	26.33	23.74	25.11	24.14	25.46	25.83
	6H	24.71	25.97	25.12	26.34	26.73	24.20	25.47	24.62	25.84	26.23
	8H	24.85	26.06	25.27	26.45	26.85	24.35	25.56	24.77	25.95	26.34
	12H	24.94	26.10	25.37	26.48	26.91	24.43	25.59	24.86	25.97	26.40
4H	2H	22.40	23.77	22.80	24.12	24.49	22.05	23.42	22.45	23.76	24.14
	3H	24.38	25.52	24.79	25.92	26.32	23.97	25.12	24.38	25.51	25.91
	4H	25.15	26.19	25.58	26.60	27.04	24.73	25.76	25.16	26.18	26.61
	6H	25.75	26.65	26.20	27.09	27.55	25.32	26.22	25.77	26.66	27.12
	8H	25.94	26.78	26.40	27.23	27.69	25.50	26.35	25.96	26.79	27.25
	12H	26.07	26.83	26.55	27.31	27.78	25.62	26.38	26.10	26.85	27.32
8H	4H	25.43	26.27	25.89	26.71	27.18	25.05	25.90	25.51	26.34	26.81
	6H	26.14	26.84	26.63	27.33	27.81	25.76	26.46	26.25	26.95	27.43
	8H	26.40	27.03	26.91	27.54	28.02	26.01	26.64	26.52	27.14	27.63
	12H	26.60	27.16	27.11	27.65	28.21	26.19	26.74	26.69	27.23	27.80
12H	4H	25.45	26.21	25.93	26.69	27.16	25.09	25.85	25.57	26.32	26.79
	6H	26.19	26.82	26.69	27.32	27.81	25.82	26.45	26.33	26.96	27.44
	8H	26.50	27.06	27.01	27.55	28.11	26.12	26.68	26.63	27.17	27.73