

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: P997765

Luminaire Tested: SA2XXRDP-B865DB27-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997765
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXRDP-B865DB27-4F0-XX-W2A-F
Description: Define 2 Regressed Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

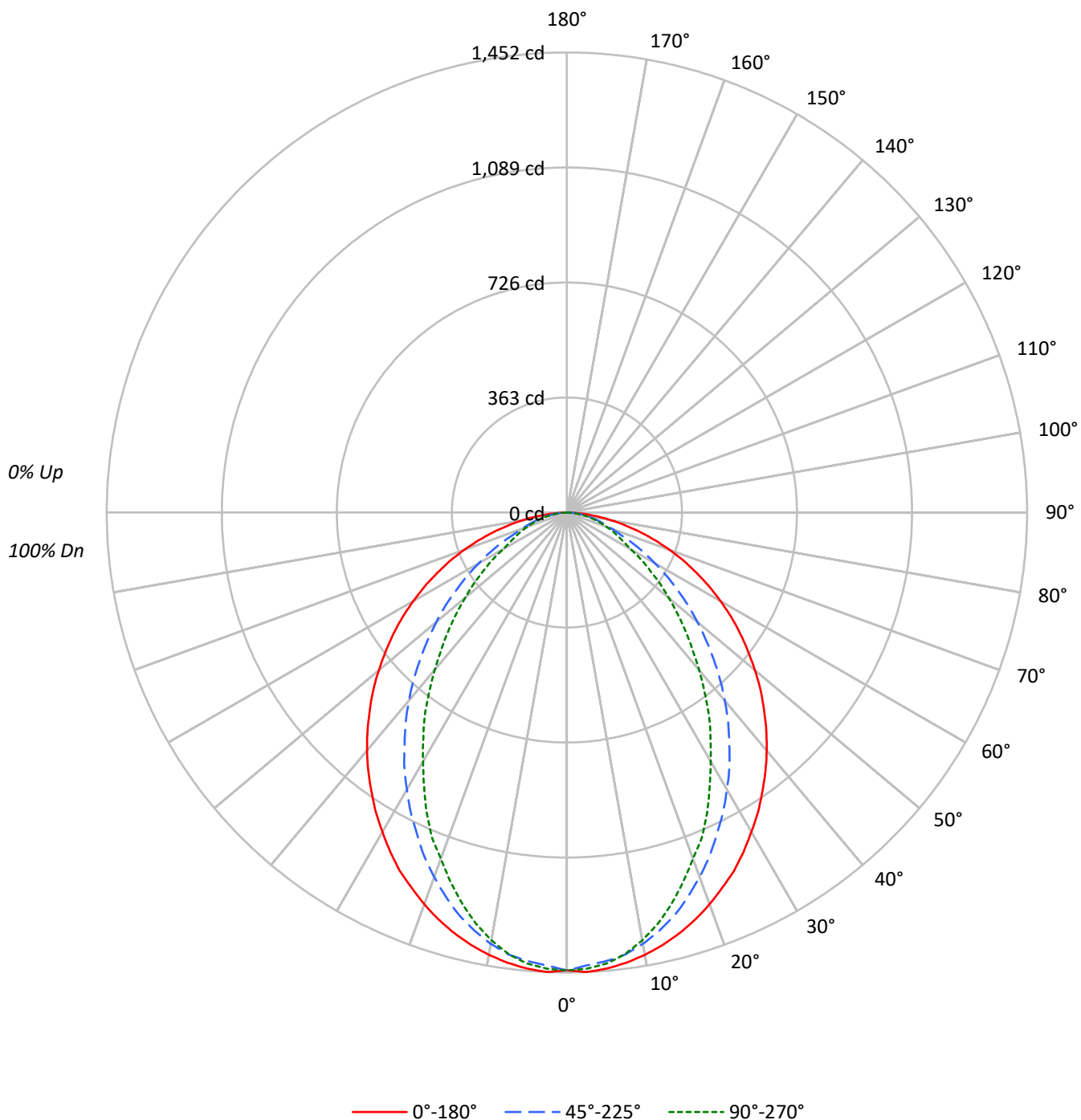
Lumens per Lamp: N/A
Luminaire Lumens: 2972.0 lumens
Efficiency: N/A
Efficacy: 63.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22875	22875	22875
5°	22962	22587	22713
10°	22786	22218	22029
15°	22525	21560	20939
20°	22162	20620	19584
25°	21790	19551	18273
30°	21274	18454	16589
35°	20773	17260	15111
40°	20267	16025	13405
45°	19673	14638	11856
50°	19065	13236	10338
55°	18443	11729	8878
60°	17719	10143	7370
65°	16900	8525	6712
70°	15916	7021	6174
75°	14715	6397	5761
80°	12990	5725	5242
85°	10207	4504	4504

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 19673 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.4	4.6
10°-20°	371.8	12.5
20°-30°	522.0	17.6
30°-40°	569.0	19.1
40°-50°	523.0	17.6
50°-60°	410.7	13.8
60°-70°	267.3	9.0
70°-80°	137.6	4.6
80°-90°	35.1	1.2
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°	1029.2	34.6
0°-40°	1598.2	53.8
0°-60°	2531.9	85.2
0°-90°	2972.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2972.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1445	1438	1422	1433	1429	137
15°	1374	1360	1316	1291	1278	387
25°	1248	1206	1119	1066	1046	574
35°	1075	1008	893	811	782	673
45°	879	791	654	561	530	679
55°	668	566	425	347	322	597
65°	451	345	228	183	179	447
75°	241	149	105	96	94	254
85°	56	29	25	25	25	67
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1445.1	1445.1	1445.1	1445.1	1445.1
2.5°	1451.6	1445.1	1430.7	1443.8	1441.2
5°	1445.1	1438.5	1421.5	1433.3	1429.4
7.5°	1433.3	1425.5	1407.2	1412.4	1405.9
10°	1417.6	1408.5	1382.3	1378.4	1370.5
12.5°	1398.0	1386.2	1350.9	1343.1	1328.7
15°	1374.5	1360.1	1315.6	1290.8	1277.7
17.5°	1347.0	1326.1	1271.2	1242.4	1221.5
20°	1315.6	1289.5	1224.1	1191.4	1162.6
22.5°	1281.6	1251.5	1175.7	1131.2	1111.6
25°	1247.6	1205.8	1119.4	1065.8	1046.2
27.5°	1207.1	1162.6	1067.1	1005.7	975.6
30°	1163.9	1114.2	1009.6	942.9	907.6
32.5°	1122.1	1061.9	954.7	876.2	843.5
35°	1075.0	1008.3	893.2	810.8	782.0
37.5°	1029.2	957.3	835.7	745.4	712.7
40°	980.8	902.4	775.5	682.7	648.7
42.5°	931.1	847.4	715.3	618.6	585.9
45°	878.8	791.2	653.9	561.0	529.6
47.5°	829.1	736.3	595.0	502.2	473.4
50°	774.2	681.3	537.5	447.3	419.8
52.5°	720.6	622.5	482.6	396.3	371.4
55°	668.3	566.3	425.0	346.6	321.7
57.5°	614.7	510.0	374.0	300.8	279.9
60°	559.7	455.1	320.4	253.7	232.8
62.5°	506.1	401.5	274.6	211.9	201.4
65°	451.2	345.3	227.6	183.1	179.2
67.5°	398.9	292.9	183.1	160.9	156.9
70°	343.9	241.9	151.7	138.6	133.4
72.5°	291.6	194.9	126.9	116.4	113.8
75°	240.6	149.1	104.6	95.5	94.2
77.5°	189.6	105.9	82.4	77.2	74.5
80°	142.5	75.9	62.8	57.5	57.5
82.5°	99.4	51.0	43.2	40.5	40.5
85°	56.2	28.8	24.8	24.8	24.8
87.5°	20.9	10.5	10.5	9.2	9.2
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	22.11	23.63	22.47	23.94	24.26	18.07	19.59	18.43	19.91	20.22
	3H	23.87	25.24	24.25	25.57	25.93	19.34	20.70	19.71	21.03	21.39
	4H	24.54	25.82	24.94	26.17	26.55	19.84	21.12	20.24	21.47	21.85
	6H	25.03	26.21	25.44	26.58	26.97	20.22	21.40	20.63	21.77	22.16
	8H	25.20	26.32	25.62	26.71	27.11	20.34	21.47	20.77	21.86	22.26
	12H	25.30	26.38	25.73	26.76	27.19	20.42	21.50	20.85	21.88	22.31
4H	2H	22.21	23.49	22.61	23.84	24.22	18.77	20.05	19.17	20.40	20.77
	3H	24.15	25.21	24.56	25.61	26.01	20.21	21.27	20.62	21.67	22.07
	4H	24.90	25.85	25.33	26.27	26.71	20.81	21.77	21.24	22.18	22.62
	6H	25.49	26.32	25.95	26.76	27.22	21.30	22.13	21.75	22.57	23.03
	8H	25.70	26.48	26.17	26.92	27.39	21.46	22.24	21.92	22.68	23.15
	12H	25.86	26.55	26.34	27.03	27.50	21.58	22.27	22.06	22.75	23.22
8H	4H	24.92	25.70	25.38	26.14	26.61	21.16	21.94	21.63	22.38	22.85
	6H	25.56	26.20	26.05	26.69	27.17	21.75	22.39	22.25	22.88	23.36
	8H	25.81	26.38	26.32	26.89	27.38	21.97	22.55	22.48	23.06	23.54
	12H	26.01	26.52	26.52	27.01	27.58	22.15	22.66	22.66	23.15	23.71
12H	4H	24.90	25.60	25.39	26.08	26.55	21.21	21.90	21.69	22.38	22.85
	6H	25.54	26.12	26.05	26.63	27.11	21.81	22.39	22.33	22.90	23.39
	8H	25.82	26.33	26.33	26.83	27.39	22.09	22.60	22.59	23.09	23.65