

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: P997653

Luminaire Tested: SA2XXDP-B675DB50-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P997653
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-B675DB50-4F0-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

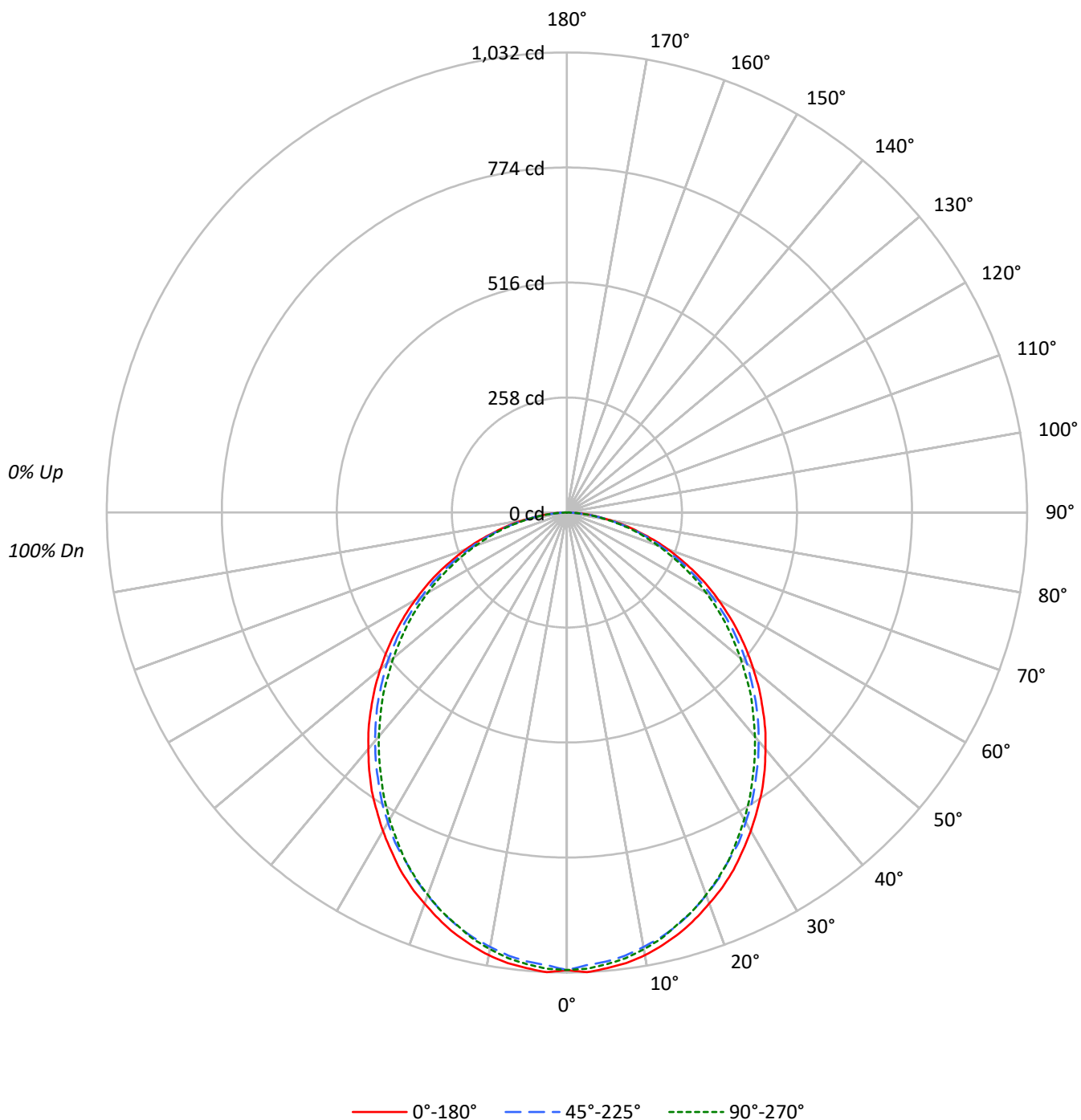
Lumens per Lamp: N/A
Luminaire Lumens: 2611.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.9
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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16246	16246	16246
5°	16308	16072	16166
10°	16210	15910	15988
15°	16009	15703	15686
20°	15725	15393	15376
25°	15443	15012	15012
30°	15079	14665	14538
35°	14740	14244	14035
40°	14314	13826	13559
45°	13895	13409	13078
50°	13438	12978	12515
55°	12963	12474	12010
60°	12432	11872	11435
65°	11866	11274	10757
70°	11145	10552	10048
75°	10140	9718	9474
80°	8997	8724	8277
85°	7356	6992	6266

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13895 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	3.7
10°-20°	271.8	10.4
20°-30°	399.4	15.3
30°-40°	463.9	17.8
40°-50°	463.3	17.7
50°-60°	404.0	15.5
60°-70°	298.6	11.4
70°-80°	169.0	6.5
80°-90°	44.6	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°	767.7	29.4
0°-40°	1231.6	47.2
0°-60°	2098.9	80.4
0°-90°	2611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2611.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1026	1022	1012	1019	1017	97
15°	977	971	958	962	957	275
25°	884	876	860	862	860	407
35°	763	753	737	731	726	476
45°	621	614	599	588	584	479
55°	470	464	452	440	435	420
65°	317	311	301	292	287	313
75°	166	164	159	153	155	177
85°	40	40	38	36	34	48
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1026.3	1026.3	1026.3	1026.3	1026.3
2.5°	1032.2	1027.3	1016.4	1026.3	1024.3
5°	1026.3	1022.3	1011.5	1019.4	1017.4
7.5°	1019.4	1013.4	1002.6	1010.5	1008.5
10°	1008.5	1001.6	989.8	997.7	994.7
12.5°	993.7	987.8	975.9	980.9	978.9
15°	976.9	971.0	958.2	962.1	957.2
17.5°	956.2	950.3	937.5	942.4	937.5
20°	933.5	927.6	913.8	916.7	912.8
22.5°	910.8	901.9	889.1	889.1	887.1
25°	884.2	876.3	859.5	861.5	859.5
27.5°	854.6	847.7	834.8	831.9	826.9
30°	825.0	817.1	802.3	799.3	795.4
32.5°	793.4	787.5	771.7	765.8	761.8
35°	762.8	752.9	737.1	731.2	726.3
37.5°	728.3	719.4	703.6	696.7	691.7
40°	692.7	684.8	669.1	660.2	656.2
42.5°	658.2	650.3	634.5	624.6	618.7
45°	620.7	613.8	599.0	588.1	584.2
47.5°	584.2	577.3	561.5	550.6	544.7
50°	545.7	540.8	527.0	513.1	508.2
52.5°	508.2	501.3	488.5	477.6	470.7
55°	469.7	463.8	452.0	440.1	435.2
57.5°	431.2	426.3	413.5	401.6	397.7
60°	392.7	388.8	375.0	364.1	361.2
62.5°	355.2	348.3	338.5	328.6	324.7
65°	316.8	310.8	301.0	292.1	287.2
67.5°	277.3	272.4	263.5	256.6	252.6
70°	240.8	236.8	228.0	221.0	217.1
72.5°	203.3	199.3	194.4	187.5	184.5
75°	165.8	163.8	158.9	153.0	154.9
77.5°	132.2	128.3	126.3	123.3	120.4
80°	98.7	97.7	95.7	92.8	90.8
82.5°	67.1	67.1	66.1	62.2	62.2
85°	40.5	39.5	38.5	35.5	34.5
87.5°	17.8	15.8	13.8	10.9	9.9
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	20.97	22.58	21.33	22.89	23.21	20.52	22.13	20.89	22.45	22.76
	3H	22.72	24.17	23.10	24.50	24.86	22.23	23.68	22.60	24.01	24.37
	4H	23.36	24.73	23.76	25.08	25.46	22.87	24.24	23.27	24.59	24.96
	6H	23.83	25.10	24.24	25.47	25.86	23.33	24.60	23.74	24.97	25.36
	8H	23.98	25.19	24.40	25.58	25.98	23.47	24.68	23.90	25.07	25.47
	12H	24.07	25.23	24.50	25.61	26.04	23.55	24.71	23.98	25.10	25.53
4H	2H	21.53	22.90	21.93	23.25	23.62	21.18	22.54	21.57	22.89	23.27
	3H	23.50	24.65	23.91	25.05	25.45	23.10	24.24	23.51	24.64	25.04
	4H	24.28	25.32	24.71	25.73	26.17	23.86	24.89	24.29	25.31	25.74
	6H	24.88	25.78	25.33	26.22	26.68	24.44	25.35	24.90	25.79	26.25
	8H	25.07	25.91	25.53	26.36	26.82	24.63	25.47	25.09	25.92	26.38
	12H	25.20	25.96	25.68	26.43	26.90	24.75	25.51	25.23	25.98	26.45
8H	4H	24.55	25.40	25.01	25.84	26.31	24.18	25.03	24.64	25.47	25.93
	6H	25.27	25.97	25.76	26.46	26.93	24.89	25.59	25.38	26.08	26.55
	8H	25.53	26.16	26.04	26.66	27.15	25.14	25.77	25.65	26.27	26.76
	12H	25.73	26.29	26.23	26.78	27.34	25.31	25.87	25.82	26.36	26.92
12H	4H	24.58	25.34	25.06	25.82	26.28	24.21	24.97	24.70	25.45	25.92
	6H	25.31	25.95	25.82	26.45	26.94	24.94	25.58	25.45	26.08	26.57
	8H	25.63	26.18	26.13	26.68	27.24	25.25	25.81	25.76	26.30	26.86