

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055376

Luminaire Tested: S122R3DR-H675D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055376
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-H675D930-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

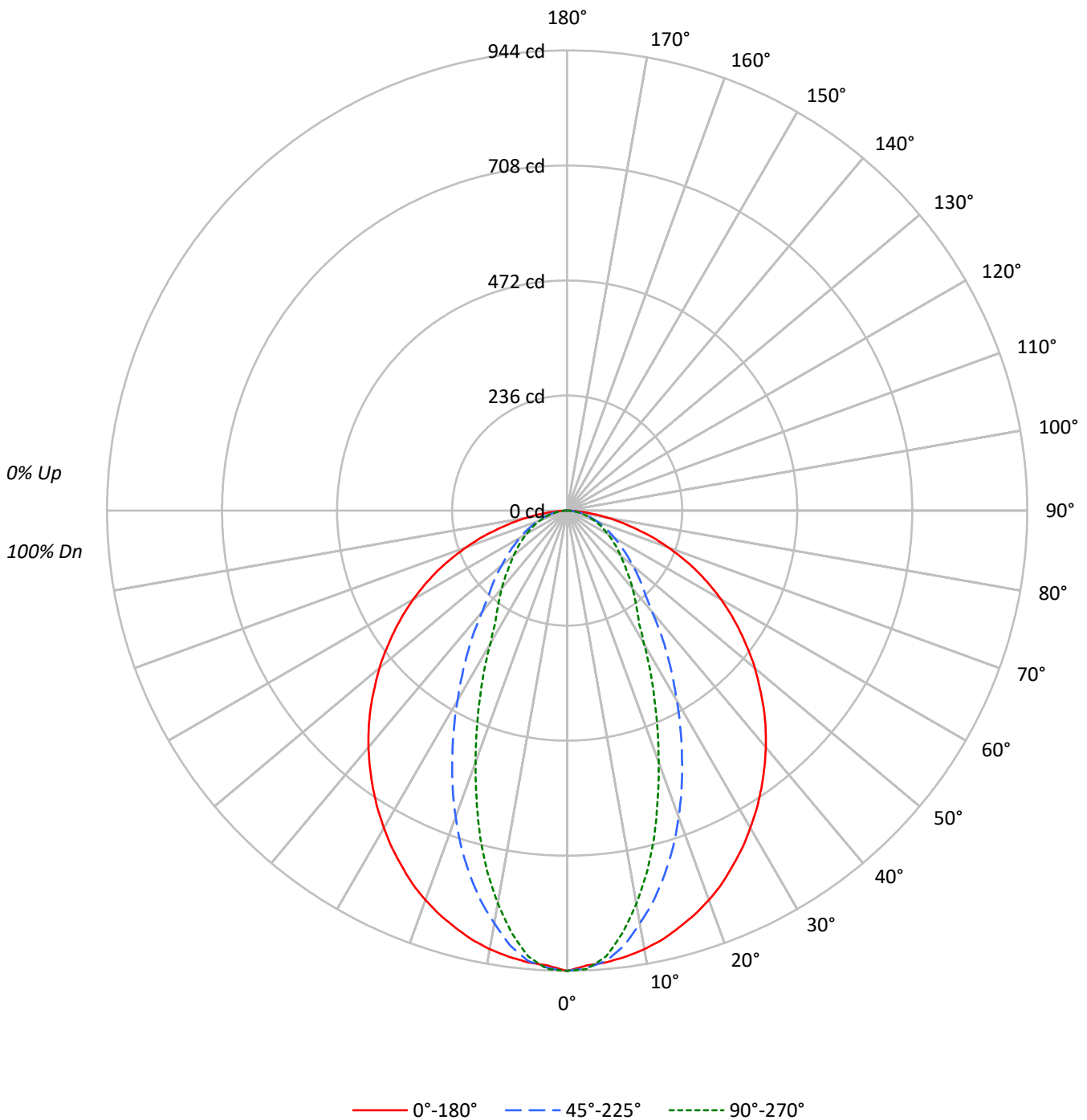
Lumens per Lamp: N/A
Luminaire Lumens: 1428.2 lumens
Efficiency: N/A
Efficacy: 60.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
Input Voltage (V): 120
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	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17891	17891	17891
5°	17687	17628	17463
10°	17574	16541	15750
15°	17374	15160	13549
20°	17144	13482	11063
25°	16801	11652	8830
30°	16443	9845	6891
35°	16070	8236	5789
40°	15680	6678	5154
45°	15272	5838	4611
50°	14823	5167	4212
55°	14316	4667	3911
60°	13823	4248	3649
65°	13166	3891	3434
70°	12203	3628	3235
75°	10804	3294	3060
80°	9219	3099	2848
85°	6347	2739	2565

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15272 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	6.1
10°-20°	218.5	15.3
20°-30°	269.2	18.8
30°-40°	258.3	18.1
40°-50°	222.8	15.6
50°-60°	172.8	12.1
60°-70°	118.3	8.3
70°-80°	64.2	4.5
80°-90°	17.6	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°	574.2	40.2
0°-40°	832.5	58.3
0°-60°	1228.0	86.0
0°-90°	1428.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1428.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	930	944	927	915	918	88
15°	886	859	773	710	691	250
25°	804	718	557	455	422	370
35°	695	551	356	265	250	435
45°	570	384	218	180	172	439
55°	433	230	141	122	118	388
65°	294	126	87	79	77	290
75°	148	58	45	43	42	158
85°	29	14	13	13	12	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	944.3	944.3	944.3	944.3	944.3
2.5°	934.0	949.8	938.7	938.7	941.1
5°	930.0	943.5	926.9	915.0	918.2
7.5°	922.9	932.4	899.3	874.0	873.2
10°	913.5	914.3	859.8	826.6	818.7
12.5°	901.6	889.0	819.5	769.8	757.9
15°	885.8	859.0	772.9	709.8	690.8
17.5°	869.3	828.2	723.2	644.2	618.2
20°	850.3	791.1	668.7	578.7	548.7
22.5°	829.0	755.6	614.2	515.6	484.0
25°	803.7	717.7	557.4	454.8	422.4
27.5°	779.2	679.0	502.9	401.1	367.9
30°	751.6	637.1	450.0	349.8	315.0
32.5°	724.0	594.5	401.1	300.8	274.7
35°	694.8	551.1	356.1	265.3	250.3
37.5°	664.8	508.4	313.4	241.6	228.2
40°	634.0	465.8	270.0	218.7	208.4
42.5°	602.4	424.0	240.0	199.7	190.3
45°	570.0	383.7	217.9	180.0	172.1
47.5°	535.3	343.4	196.6	163.4	156.3
50°	502.9	304.8	175.3	148.4	142.9
52.5°	468.2	266.9	157.9	135.0	130.3
55°	433.4	230.5	141.3	122.4	118.4
57.5°	399.5	195.8	125.5	110.5	107.4
60°	364.8	168.2	112.1	99.5	96.3
62.5°	329.2	146.1	99.5	89.2	86.1
65°	293.7	125.5	86.8	79.0	76.6
67.5°	256.6	105.8	75.8	69.5	67.9
70°	220.3	88.4	65.5	60.0	58.4
72.5°	184.7	71.8	55.3	51.3	49.7
75°	147.6	57.6	45.0	42.6	41.8
77.5°	115.3	45.0	36.3	34.7	33.9
80°	84.5	33.2	28.4	26.8	26.1
82.5°	56.1	22.9	20.5	19.7	18.9
85°	29.2	14.2	12.6	12.6	11.8
87.5°	9.5	6.3	6.3	6.3	5.5
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	19.63	21.10	20.00	21.41	21.73	14.43	15.90	14.80	16.22	16.53
	3H	21.96	23.28	22.34	23.60	23.97	16.08	17.40	16.46	17.73	18.09
	4H	22.85	24.09	23.26	24.44	24.82	16.72	17.95	17.12	18.30	18.68
	6H	23.52	24.66	23.93	25.02	25.42	17.21	18.35	17.62	18.72	19.11
	8H	23.73	24.81	24.15	25.20	25.60	17.38	18.46	17.81	18.85	19.26
	12H	23.84	24.88	24.27	25.26	25.69	17.50	18.53	17.93	18.92	19.34
4H	2H	19.65	20.88	20.05	21.23	21.61	15.15	16.38	15.55	16.73	17.11
	3H	22.06	23.08	22.47	23.48	23.89	17.00	18.02	17.41	18.42	18.83
	4H	22.99	23.91	23.42	24.33	24.77	17.74	18.67	18.18	19.08	19.52
	6H	23.77	24.57	24.22	25.01	25.47	18.36	19.16	18.82	19.60	20.06
	8H	24.04	24.79	24.50	25.23	25.70	18.57	19.32	19.04	19.77	20.24
	12H	24.21	24.88	24.70	25.36	25.83	18.73	19.40	19.22	19.88	20.35
8H	4H	22.98	23.73	23.44	24.17	24.64	18.12	18.87	18.59	19.32	19.78
	6H	23.79	24.41	24.29	24.90	25.38	18.86	19.48	19.36	19.97	20.45
	8H	24.09	24.64	24.61	25.16	25.64	19.15	19.71	19.67	20.22	20.71
	12H	24.32	24.81	24.83	25.30	25.87	19.40	19.89	19.91	20.38	20.94
12H	4H	22.96	23.63	23.44	24.11	24.58	18.18	18.85	18.66	19.33	19.80
	6H	23.76	24.32	24.28	24.83	25.32	18.95	19.50	19.46	20.01	20.50
	8H	24.10	24.59	24.61	25.08	25.65	19.30	19.79	19.81	20.28	20.85