

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: P1055213

Luminaire Tested: S122R3DR-S485D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055213
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S485D930-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

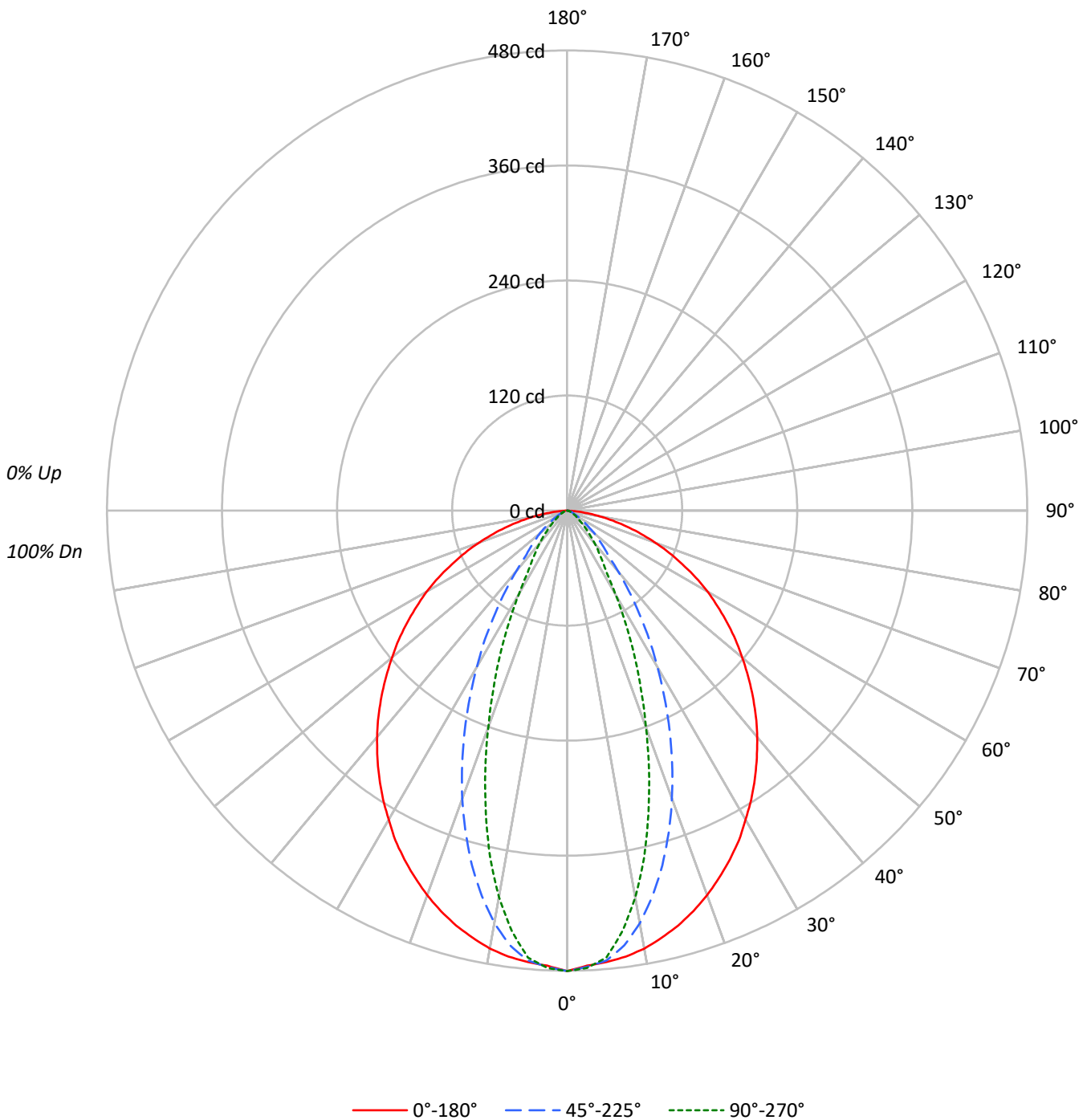
Lumens per Lamp: N/A
Luminaire Lumens: 550.6 lumens
Efficiency: N/A
Efficacy: 28.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (A_{in}): 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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9102	9102	9102
5°	8992	8958	8902
10°	8925	8405	7872
15°	8787	7518	6422
20°	8607	6446	4843
25°	8393	5280	3458
30°	8140	4122	2203
35°	7898	3023	1471
40°	7630	2038	1106
45°	7336	1436	788
50°	7027	1094	554
55°	6728	760	410
60°	6404	512	333
65°	5940	368	264
70°	5412	294	227
75°	4700	256	176
80°	3720	196	196
85°	2043	261	130

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7336 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.9	8.0
10°-20°	107.8	19.6
20°-30°	123.2	22.4
30°-40°	104.4	19.0
40°-50°	77.9	14.2
50°-60°	50.4	9.1
60°-70°	28.1	5.1
70°-80°	12.3	2.2
80°-90°	2.6	0.5
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°	274.9	49.9
0°-40°	379.3	68.9
0°-60°	507.6	92.2
0°-90°	550.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	550.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	480	480	480	480	480	
5°	473	479	471	466	468	45
15°	448	437	383	343	327	126
25°	402	354	253	185	165	185
35°	342	257	131	71	64	213
45°	274	162	54	35	29	211
55°	204	77	23	14	12	182
65°	132	28	8	6	6	132
75°	64	6	4	3	2	68
85°	9	1	1	1	1	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	480.4	480.4	480.4	480.4	480.4
2.5°	475.1	482.2	476.3	476.3	477.5
5°	472.8	478.7	471.0	466.3	468.1
7.5°	469.2	473.4	457.5	443.3	442.2
10°	463.9	465.7	436.9	415.1	409.2
12.5°	456.3	452.2	411.5	380.9	370.9
15°	448.0	436.9	383.3	342.7	327.4
17.5°	438.0	418.0	352.1	302.6	283.8
20°	426.9	398.6	319.7	260.8	240.2
22.5°	414.5	376.8	286.1	221.4	200.8
25°	401.5	354.4	252.6	184.9	165.4
27.5°	388.0	330.9	219.6	151.9	130.7
30°	372.1	306.7	188.4	120.1	100.7
32.5°	357.4	281.4	159.6	93.0	76.5
35°	341.5	257.3	130.7	71.2	63.6
37.5°	325.0	233.1	105.4	60.1	53.6
40°	308.5	209.0	82.4	50.6	44.7
42.5°	291.4	185.5	63.6	42.4	36.5
45°	273.8	162.5	53.6	34.7	29.4
47.5°	256.1	139.5	44.7	27.7	23.6
50°	238.4	117.8	37.1	21.8	18.8
52.5°	221.4	97.1	29.4	17.7	15.3
55°	203.7	77.1	23.0	14.1	12.4
57.5°	186.0	60.1	17.7	11.8	10.6
60°	169.0	45.3	13.5	9.4	8.8
62.5°	151.3	36.5	10.6	7.7	7.1
65°	132.5	28.3	8.2	6.5	5.9
67.5°	115.4	20.6	6.5	5.3	4.7
70°	97.7	14.1	5.3	4.7	4.1
72.5°	80.7	8.8	4.1	3.5	3.5
75°	64.2	5.9	3.5	2.9	2.4
77.5°	48.9	3.5	2.4	2.4	1.8
80°	34.1	2.4	1.8	1.8	1.8
82.5°	21.2	1.8	1.2	1.2	1.2
85°	9.4	0.6	1.2	0.6	0.6
87.5°	1.8	0.6	0.6	0.6	0.6
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	15.93	17.25	16.29	17.56	17.87	2.25	3.57	2.61	3.88	4.19
	3H	18.39	19.57	18.77	19.90	20.26	3.09	4.26	3.47	4.59	4.96
	4H	19.35	20.44	19.75	20.79	21.18	3.36	4.46	3.77	4.81	5.19
	6H	20.04	21.04	20.45	21.41	21.81	3.56	4.57	3.98	4.94	5.33
	8H	20.23	21.18	20.66	21.57	21.98	3.64	4.59	4.07	4.98	5.39
	12H	20.32	21.22	20.75	21.61	22.04	3.67	4.58	4.10	4.96	5.39
4H	2H	15.71	16.80	16.11	17.15	17.54	2.81	3.90	3.21	4.25	4.63
	3H	18.19	19.09	18.61	19.49	19.90	3.83	4.73	4.25	5.13	5.54
	4H	19.14	19.94	19.57	20.36	20.80	4.20	5.00	4.63	5.42	5.86
	6H	19.89	20.58	20.36	21.03	21.50	4.51	5.20	4.97	5.64	6.11
	8H	20.14	20.78	20.60	21.23	21.70	4.61	5.25	5.08	5.70	6.17
	12H	20.26	20.83	20.75	21.32	21.79	4.66	5.23	5.14	5.71	6.18
8H	4H	19.01	19.65	19.47	20.10	20.57	4.57	5.22	5.04	5.66	6.13
	6H	19.74	20.27	20.25	20.77	21.25	4.95	5.47	5.45	5.97	6.45
	8H	19.99	20.46	20.51	20.97	21.47	5.10	5.57	5.62	6.08	6.57
	12H	20.14	20.55	20.65	21.05	21.62	5.18	5.60	5.70	6.09	6.66
12H	4H	18.96	19.53	19.45	20.01	20.49	4.69	5.26	5.18	5.75	6.22
	6H	19.68	20.15	20.21	20.67	21.16	5.07	5.54	5.59	6.06	6.55
	8H	19.95	20.36	20.46	20.86	21.43	5.26	5.67	5.77	6.17	6.74