

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: P1058196

Luminaire Tested: S122RDR-H1005D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058196
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

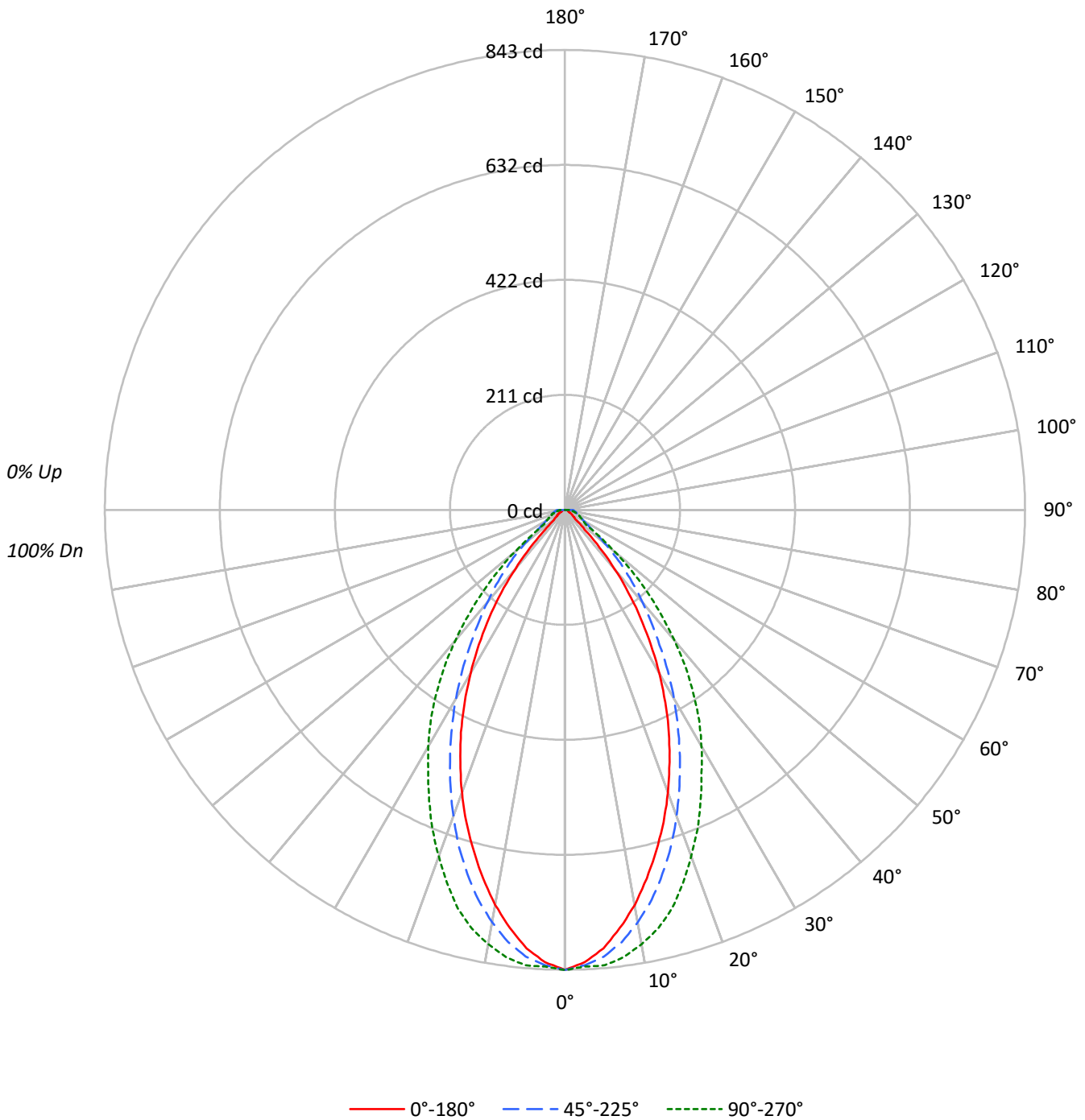
Lumens per Lamp: N/A
Luminaire Lumens: 917.8 lumens
Efficiency: N/A
Efficacy: 25.1 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	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	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15561	15561	15561
5°	14944	15220	15520
10°	13777	14384	15143
15°	12347	13197	14459
20°	10836	11737	13274
25°	9174	10137	11978
30°	7359	8510	10666
35°	5440	6807	9240
40°	3413	5331	7508
45°	1339	4014	5564
50°	657	2710	3408
55°	521	1779	1518
60°	399	1443	1395
65°	293	1354	1354
70°	361	1381	1381
75°	385	1540	1440
80°	574	2008	1573
85°	1143	3430	2287

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 6261 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	8.4
10°-20°	194.7	21.2
20°-30°	232.9	25.4
30°-40°	196.1	21.4
40°-50°	111.6	12.2
50°-60°	44.0	4.8
60°-70°	27.7	3.0
70°-80°	20.6	2.2
80°-90°	13.1	1.4
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°	504.7	55.0
0°-40°	700.7	76.4
0°-60°	856.4	93.3
0°-90°	917.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	917.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	807	824	822	831	838	75
15°	646	669	691	731	757	180
25°	451	471	498	549	588	205
35°	242	263	302	367	410	150
45°	51	90	154	193	213	48
55°	16	35	55	57	47	15
65°	7	31	31	30	31	7
75°	5	22	22	20	20	6
85°	5	15	16	15	11	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	843.3	843.3	843.3	843.3	843.3
2.5°	829.8	844.6	835.2	836.5	837.9
5°	806.8	824.4	821.7	831.1	837.9
7.5°	773.1	792.0	798.7	814.9	827.1
10°	735.3	756.9	767.7	793.3	808.2
12.5°	692.1	716.4	732.6	765.0	786.6
15°	646.3	669.2	690.8	731.3	756.9
17.5°	600.4	623.3	646.3	690.8	717.8
20°	551.8	573.4	597.7	644.9	676.0
22.5°	500.6	523.5	547.8	596.4	634.1
25°	450.6	470.9	497.9	549.1	588.3
27.5°	398.0	418.3	447.9	500.6	542.4
30°	345.4	365.6	399.4	453.3	500.6
32.5°	292.8	314.4	350.8	410.2	457.4
35°	241.5	263.1	302.2	367.0	410.2
37.5°	191.6	215.9	259.1	322.5	362.9
40°	141.7	170.0	221.3	277.9	311.7
42.5°	94.4	129.5	186.2	233.4	261.7
45°	51.3	90.4	153.8	192.9	213.2
47.5°	28.3	58.0	122.8	153.8	166.0
50°	22.9	40.5	94.4	117.4	118.7
52.5°	18.9	36.4	70.2	83.7	76.9
55°	16.2	35.1	55.3	56.7	47.2
57.5°	13.5	33.7	45.9	40.5	40.5
60°	10.8	33.7	39.1	36.4	37.8
62.5°	8.1	33.7	35.1	32.4	33.7
65°	6.7	31.0	31.0	29.7	31.0
67.5°	6.7	28.3	28.3	27.0	28.3
70°	6.7	27.0	25.6	25.6	25.6
72.5°	5.4	24.3	24.3	22.9	22.9
75°	5.4	21.6	21.6	20.2	20.2
77.5°	5.4	20.2	20.2	18.9	17.5
80°	5.4	17.5	18.9	17.5	14.8
82.5°	5.4	16.2	17.5	16.2	12.1
85°	5.4	14.8	16.2	14.8	10.8
87.5°	4.0	14.8	14.8	12.1	8.1
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	7.22	8.44	7.59	8.76	9.07	9.26	10.48	9.62	10.79	11.10
	3H	8.76	9.85	9.14	10.18	10.55	11.22	12.31	11.61	12.64	13.01
	4H	9.32	10.33	9.73	10.68	11.07	12.14	13.15	12.54	13.50	13.88
	6H	9.88	10.81	10.29	11.18	11.57	13.02	13.95	13.43	14.32	14.71
	8H	10.17	11.05	10.60	11.44	11.85	13.42	14.30	13.85	14.69	15.10
	12H	10.53	11.38	10.97	11.76	12.19	13.86	14.70	14.30	15.09	15.52
4H	2H	8.41	9.42	8.81	9.77	10.16	9.87	10.88	10.28	11.24	11.62
	3H	10.61	11.44	11.02	11.85	12.25	12.11	12.95	12.53	13.35	13.76
	4H	11.66	12.41	12.10	12.83	13.28	13.18	13.93	13.62	14.35	14.80
	6H	12.56	13.21	13.02	13.65	14.12	14.29	14.94	14.76	15.39	15.85
	8H	12.94	13.55	13.42	14.00	14.47	14.81	15.42	15.28	15.87	16.34
	12H	13.37	13.90	13.85	14.38	14.86	15.39	15.92	15.88	16.41	16.88
8H	4H	12.47	13.07	12.94	13.52	13.99	13.68	14.28	14.15	14.73	15.20
	6H	13.85	14.34	14.35	14.84	15.32	15.07	15.57	15.58	16.07	16.55
	8H	14.57	15.01	15.09	15.53	16.02	15.81	16.26	16.33	16.77	17.27
	12H	15.32	15.71	15.83	16.20	16.78	16.64	17.04	17.16	17.53	18.10
12H	4H	12.63	13.16	13.12	13.65	14.12	13.78	14.31	14.26	14.79	15.27
	6H	14.18	14.62	14.70	15.14	15.63	15.29	15.73	15.81	16.25	16.74
	8H	15.09	15.49	15.61	15.98	16.55	16.17	16.57	16.69	17.06	17.64