

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: P1058218

Luminaire Tested: S122RDR-H1005D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058218
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D840-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

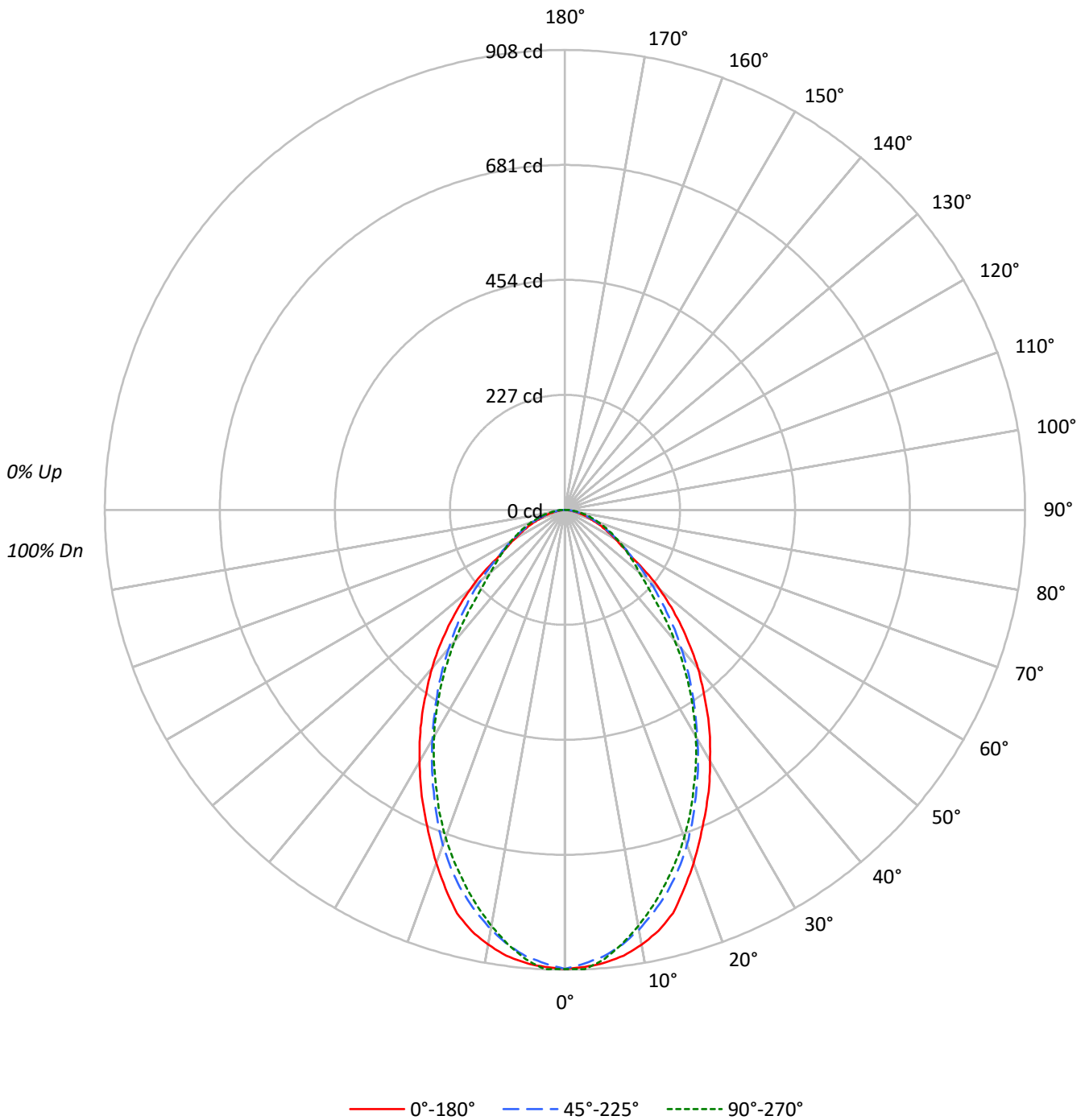
Lumens per Lamp: N/A
Luminaire Lumens: 1376.5 lumens
Efficiency: N/A
Efficacy: 37.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16725	16725	16725
5°	16628	16387	16495
10°	16333	15765	15631
15°	15743	14916	14612
20°	14567	13830	13518
25°	13370	12489	12253
30°	12209	11133	11009
35°	11054	9851	9623
40°	9838	8587	8135
45°	8473	7382	6516
50°	7002	6215	5469
55°	5060	5154	4922
60°	4207	4421	4473
65°	3593	3842	4096
70°	2957	3426	3739
75°	2467	2880	3394
80°	1838	2295	3071
85°	614	1228	2752

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8473 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.8	6.1
10°-20°	220.6	16.0
20°-30°	285.6	20.7
30°-40°	280.1	20.3
40°-50°	220.5	16.0
50°-60°	144.5	10.5
60°-70°	88.0	6.4
70°-80°	44.0	3.2
80°-90°	9.5	0.7
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°	590.0	42.9
0°-40°	870.0	63.2
0°-60°	1235.1	89.7
0°-90°	1376.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1376.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	898	898	885	890	890	85
15°	824	813	781	771	765	230
25°	657	635	613	610	602	302
35°	491	463	437	436	427	306
45°	325	304	283	263	250	250
55°	157	166	160	154	153	149
65°	82	84	88	92	94	82
75°	35	36	40	46	48	37
85°	3	4	6	10	13	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	906.4	906.4	906.4	906.4	906.4
2.5°	903.5	904.9	896.3	904.9	907.8
5°	897.7	897.7	884.7	890.5	890.5
7.5°	887.6	886.2	866.0	866.0	864.5
10°	871.7	866.0	841.4	837.1	834.2
12.5°	851.5	841.4	812.6	805.3	801.0
15°	824.1	812.6	780.8	770.7	764.9
17.5°	783.7	772.1	744.7	733.2	727.4
20°	741.8	724.5	704.3	694.2	688.4
22.5°	698.5	678.3	659.6	652.4	646.6
25°	656.7	635.0	613.4	610.5	601.8
27.5°	616.3	590.3	568.6	567.2	560.0
30°	573.0	545.6	522.5	523.9	516.7
32.5°	532.6	506.6	479.2	480.6	471.9
35°	490.7	463.3	437.3	435.9	427.2
37.5°	447.4	421.4	396.9	391.1	382.5
40°	408.4	382.5	356.5	346.4	337.7
42.5°	366.6	343.5	320.4	304.5	293.0
45°	324.7	304.5	282.9	262.7	249.7
47.5°	284.3	268.4	249.7	225.1	216.5
50°	243.9	232.4	216.5	194.8	190.5
52.5°	202.1	197.7	187.6	173.2	171.7
55°	157.3	166.0	160.2	154.4	153.0
57.5°	132.8	134.2	138.6	137.1	137.1
60°	114.0	114.0	119.8	121.2	121.2
62.5°	96.7	98.1	103.9	106.8	106.8
65°	82.3	83.7	88.0	92.4	93.8
67.5°	67.8	70.7	75.0	79.4	80.8
70°	54.8	57.7	63.5	67.8	69.3
72.5°	44.7	46.2	52.0	56.3	57.7
75°	34.6	36.1	40.4	46.2	47.6
77.5°	24.5	27.4	31.8	36.1	39.0
80°	17.3	18.8	21.6	27.4	28.9
82.5°	10.1	11.5	14.4	18.8	20.2
85°	2.9	4.3	5.8	10.1	13.0
87.5°	0.0	0.0	0.0	2.9	5.8
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	15.91	17.31	16.27	17.62	17.93	16.09	17.48	16.45	17.80	18.11
	3H	17.04	18.28	17.42	18.61	18.98	17.55	18.79	17.93	19.12	19.49
	4H	17.39	18.55	17.79	18.90	19.29	18.09	19.25	18.49	19.60	19.98
	6H	17.58	18.65	17.99	19.02	19.41	18.50	19.57	18.92	19.94	20.34
	8H	17.60	18.62	18.03	19.01	19.41	18.63	19.65	19.06	20.04	20.44
	12H	17.59	18.56	18.02	18.94	19.37	18.71	19.69	19.15	20.07	20.50
4H	2H	16.37	17.53	16.77	17.88	18.26	16.51	17.68	16.92	18.03	18.41
	3H	17.71	18.66	18.12	19.07	19.47	18.19	19.14	18.60	19.55	19.95
	4H	18.15	19.01	18.58	19.43	19.87	18.85	19.71	19.29	20.13	20.57
	6H	18.42	19.16	18.88	19.61	20.07	19.39	20.13	19.85	20.57	21.04
	8H	18.46	19.16	18.93	19.60	20.07	19.56	20.25	20.02	20.70	21.17
	12H	18.46	19.08	18.94	19.56	20.03	19.68	20.29	20.16	20.77	21.25
8H	4H	18.36	19.06	18.83	19.50	19.97	19.00	19.69	19.47	20.14	20.61
	6H	18.71	19.28	19.21	19.77	20.25	19.63	20.20	20.13	20.70	21.18
	8H	18.79	19.30	19.31	19.81	20.30	19.87	20.38	20.39	20.89	21.38
	12H	18.80	19.25	19.32	19.75	20.32	20.05	20.50	20.56	21.00	21.56
12H	4H	18.37	18.99	18.86	19.47	19.94	18.99	19.60	19.47	20.08	20.56
	6H	18.73	19.25	19.25	19.76	20.25	19.63	20.14	20.15	20.65	21.14
	8H	18.85	19.30	19.36	19.79	20.36	19.90	20.35	20.42	20.85	21.42