

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: P1058458

Luminaire Tested: S122RDR-H675D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

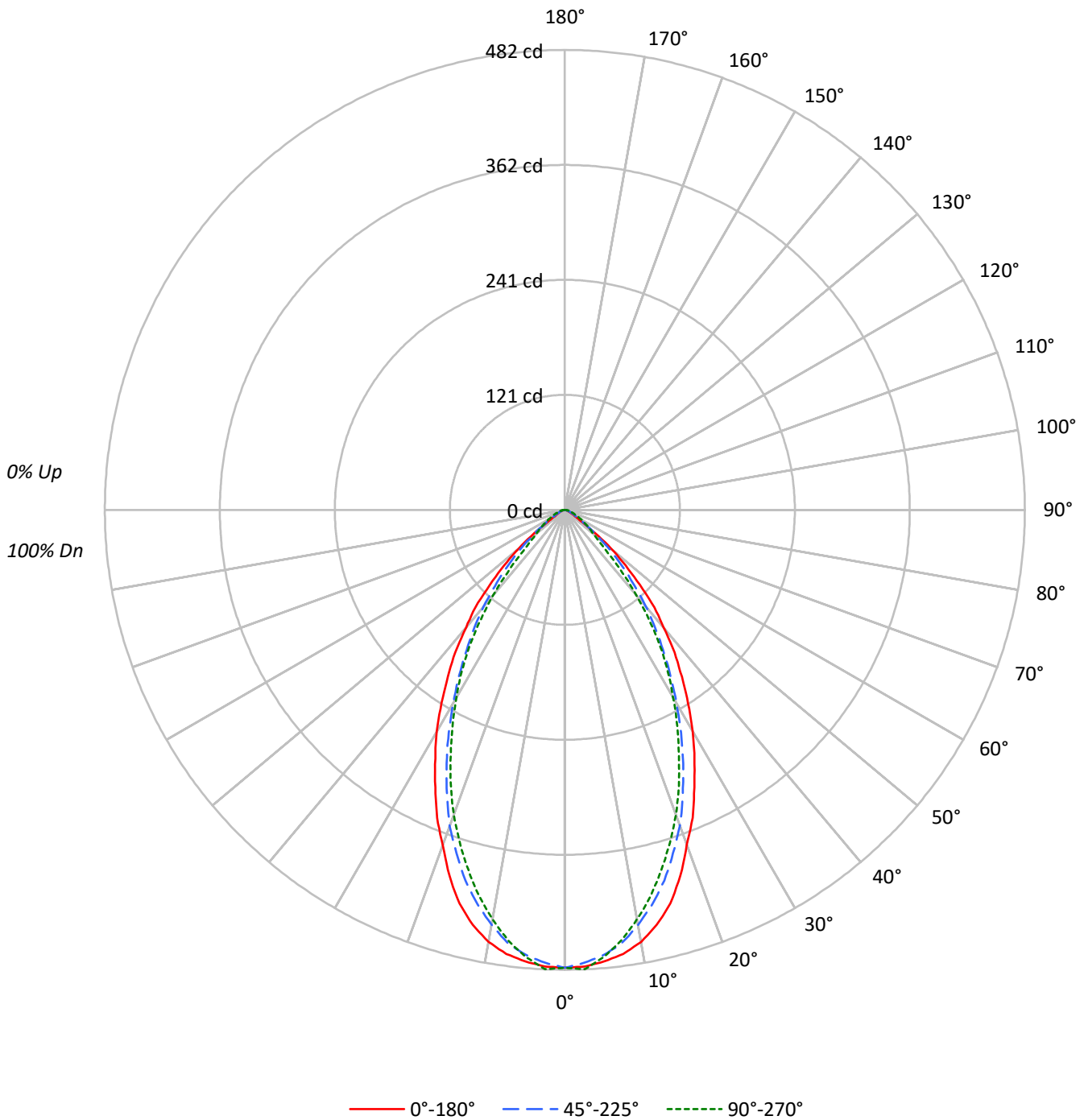
Lumens per Lamp: N/A
Luminaire Lumens: 516.1 lumens
Efficiency: N/A
Efficacy: 22.0 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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									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	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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92																												
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84																												
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76																												
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70																												
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64																												
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59																												
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54																												
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50																												
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47																												
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8855	8855	8855
5°	8800	8676	8711
10°	8615	8274	8168
15°	8161	7685	7466
20°	7336	6922	6678
25°	6534	5968	5754
30°	5715	4979	4837
35°	4812	4034	3906
40°	3876	3184	2816
45°	2899	2299	1675
50°	1814	1484	1099
55°	618	801	894
60°	354	495	709
65°	249	336	546
70°	205	259	415
75°	135	207	342
80°	106	202	308
85°	0	0	212

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2899 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	8.6
10°-20°	113.2	21.9
20°-30°	136.3	26.4
30°-40°	116.5	22.6
40°-50°	68.2	13.2
50°-60°	24.7	4.8
60°-70°	8.8	1.7
70°-80°	3.5	0.7
80°-90°	0.6	0.1
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°	293.8	56.9
0°-40°	410.3	79.5
0°-60°	503.2	97.5
0°-90°	516.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	516.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	480	480	480	480	480	
5°	475	476	468	470	470	45
15°	427	420	402	395	391	119
25°	321	308	293	288	283	147
35°	214	197	179	177	173	133
45°	111	100	88	74	64	86
55°	19	27	25	26	28	24
65°	6	7	8	10	12	6
75°	2	3	3	4	5	2
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	479.9	479.9	479.9	479.9	479.9
2.5°	479.0	479.9	475.1	479.9	481.8
5°	475.1	476.1	468.4	470.3	470.3
7.5°	469.4	468.4	457.9	456.0	455.0
10°	459.8	456.9	441.6	438.7	435.9
12.5°	445.4	439.7	423.4	418.6	414.8
15°	427.2	420.5	402.3	394.7	390.8
17.5°	402.3	394.7	377.4	369.8	365.9
20°	373.6	365.9	352.5	343.9	340.1
22.5°	349.6	337.2	322.8	317.1	312.3
25°	320.9	307.5	293.1	288.3	282.6
27.5°	294.1	277.8	263.4	259.6	254.8
30°	268.2	251.0	233.7	233.7	227.0
32.5°	240.4	224.2	206.0	205.0	201.2
35°	213.6	197.3	179.1	177.2	173.4
37.5°	188.7	172.4	155.2	149.4	144.6
40°	160.9	146.6	132.2	122.6	116.9
42.5°	138.9	122.6	108.2	96.8	89.1
45°	111.1	99.6	88.1	73.8	64.2
47.5°	86.2	78.5	69.0	52.7	47.9
50°	63.2	59.4	51.7	39.3	38.3
52.5°	40.2	42.1	37.4	30.7	33.5
55°	19.2	26.8	24.9	25.9	27.8
57.5°	12.5	13.4	18.2	21.1	23.0
60°	9.6	9.6	13.4	17.2	19.2
62.5°	7.7	7.7	10.5	14.4	15.3
65°	5.7	6.7	7.7	10.5	12.5
67.5°	4.8	4.8	5.7	8.6	9.6
70°	3.8	3.8	4.8	6.7	7.7
72.5°	2.9	2.9	3.8	5.7	5.7
75°	1.9	2.9	2.9	3.8	4.8
77.5°	1.9	1.9	1.9	2.9	3.8
80°	1.0	1.0	1.9	1.9	2.9
82.5°	1.0	1.0	1.0	1.0	1.9
85°	0.0	0.0	0.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	3.46	4.62	3.83	4.94	5.25	6.86	8.03	7.23	8.34	8.65
	3H	3.98	5.00	4.36	5.33	5.70	7.59	8.61	7.97	8.95	9.31
	4H	4.12	5.06	4.52	5.42	5.80	7.81	8.75	8.21	9.11	9.49
	6H	4.19	5.06	4.61	5.43	5.83	7.96	8.82	8.37	9.20	9.59
	8H	4.20	5.02	4.63	5.41	5.82	7.99	8.81	8.42	9.20	9.60
	12H	4.17	4.95	4.60	5.33	5.76	7.99	8.77	8.42	9.15	9.58
4H	2H	3.77	4.72	4.18	5.07	5.46	6.83	7.78	7.24	8.13	8.52
	3H	4.43	5.20	4.84	5.60	6.01	7.71	8.47	8.12	8.88	9.28
	4H	4.67	5.36	5.11	5.78	6.23	7.98	8.67	8.42	9.09	9.53
	6H	4.80	5.38	5.26	5.83	6.30	8.21	8.79	8.67	9.24	9.71
	8H	4.82	5.36	5.29	5.81	6.29	8.25	8.80	8.73	9.25	9.72
	12H	4.79	5.26	5.27	5.75	6.23	8.28	8.75	8.77	9.24	9.72
8H	4H	4.78	5.33	5.25	5.77	6.25	7.91	8.46	8.39	8.91	9.38
	6H	4.95	5.39	5.46	5.89	6.38	8.17	8.61	8.68	9.11	9.60
	8H	5.01	5.40	5.53	5.92	6.42	8.24	8.63	8.76	9.15	9.65
	12H	4.98	5.33	5.50	5.83	6.41	8.30	8.65	8.82	9.15	9.72
12H	4H	4.77	5.24	5.25	5.73	6.21	7.87	8.34	8.35	8.83	9.31
	6H	4.95	5.35	5.48	5.86	6.36	8.12	8.52	8.65	9.04	9.53
	8H	5.03	5.38	5.55	5.88	6.45	8.21	8.56	8.73	9.06	9.63