

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: P1058507

Luminaire Tested: S122RDR-H675D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058507
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

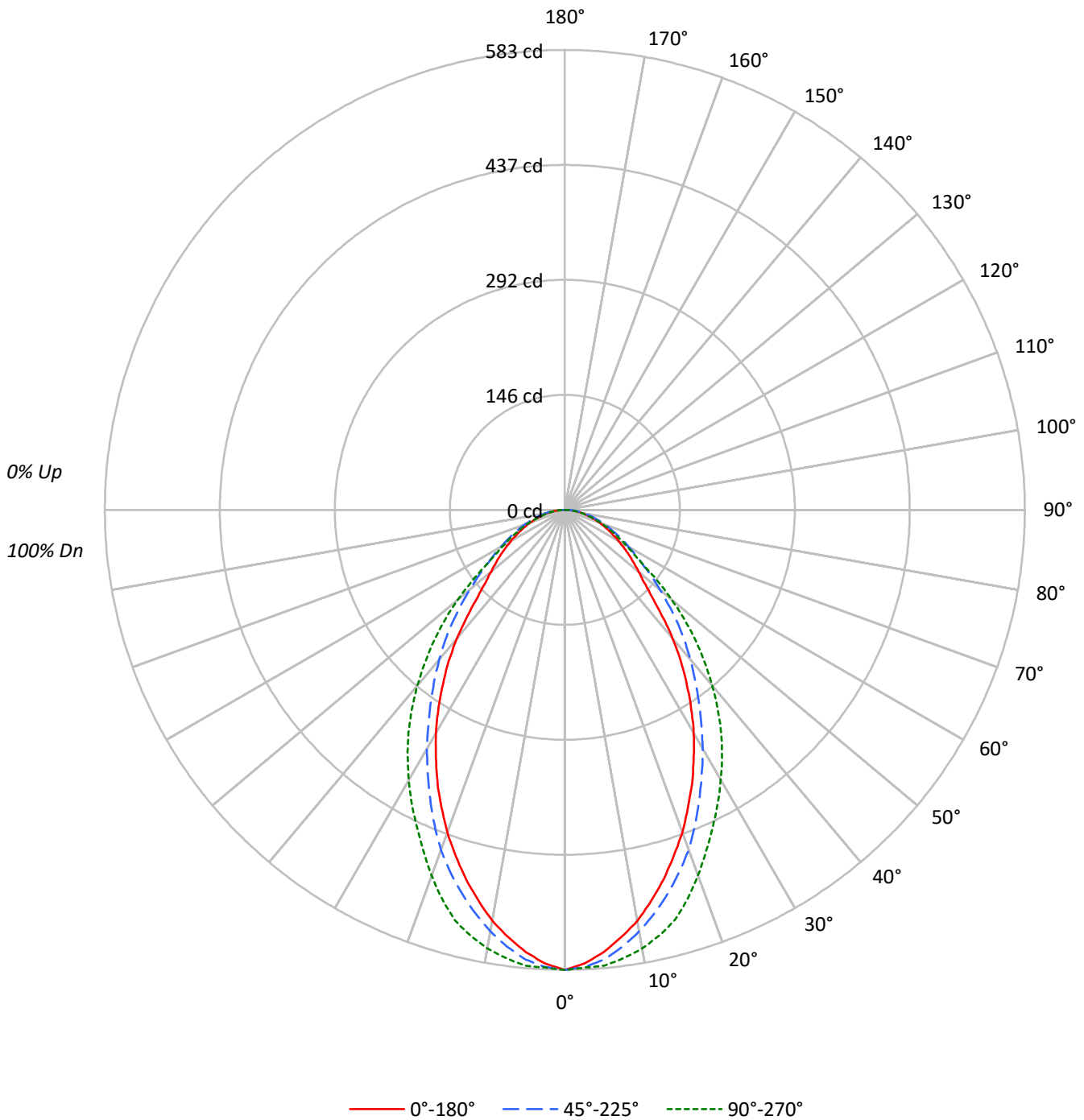
Lumens per Lamp: N/A
Luminaire Lumens: 949.8 lumens
Efficiency: N/A
Efficacy: 40.4 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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			
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87		
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76		
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66		
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59		
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52		
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47		
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43		
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39		
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36		
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10761	10761	10761
5°	10427	10599	10741
10°	9914	10167	10579
15°	9250	9622	10285
20°	8544	9009	9691
25°	7773	8221	9032
30°	6963	7449	8423
35°	6064	6654	7781
40°	5119	5955	6995
45°	4066	5258	6119
50°	3499	4521	5078
55°	3185	3867	3896
60°	2904	3436	3310
65°	2659	3104	2921
70°	2466	2876	2606
75°	2296	2716	2296
80°	2157	2603	2072
85°	2160	2689	1800

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6119 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.8	5.7
10°-20°	142.3	15.0
20°-30°	187.3	19.7
30°-40°	188.4	19.8
40°-50°	152.7	16.1
50°-60°	105.1	11.1
60°-70°	68.8	7.2
70°-80°	38.4	4.0
80°-90°	13.0	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°	383.5	40.4
0°-40°	571.8	60.2
0°-60°	829.6	87.4
0°-90°	949.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	949.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	583	583	583	583	583	
5°	563	574	572	575	580	53
15°	484	496	504	522	538	136
25°	382	392	404	422	444	175
35°	269	282	295	322	345	168
45°	156	174	202	219	234	123
55°	99	110	120	123	121	89
65°	61	73	71	68	67	61
75°	32	40	38	34	32	34
85°	10	14	13	11	8	11
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	583.2	583.2	583.2	583.2	583.2
2.5°	575.6	585.8	579.9	579.9	580.7
5°	562.9	573.9	572.2	574.8	579.9
7.5°	546.8	558.7	558.7	566.3	573.1
10°	529.1	540.9	542.6	554.5	564.6
12.5°	507.1	518.9	524.0	539.2	552.8
15°	484.2	496.1	503.7	522.3	538.4
17.5°	459.7	471.5	481.7	501.1	517.2
20°	435.1	446.1	458.8	475.7	493.5
22.5°	408.0	419.9	431.7	447.8	468.1
25°	381.8	391.9	403.8	421.6	443.6
27.5°	353.8	364.8	375.9	397.0	419.9
30°	326.8	337.8	349.6	371.6	395.3
32.5°	298.0	309.8	321.7	346.2	370.8
35°	269.2	281.9	295.4	321.7	345.4
37.5°	241.3	254.8	270.9	298.0	318.3
40°	212.5	226.9	247.2	270.9	290.4
42.5°	182.0	199.8	224.3	244.6	262.4
45°	155.8	173.5	201.5	219.2	234.5
47.5°	136.3	150.7	177.8	193.0	205.7
50°	121.9	132.9	157.5	168.5	176.9
52.5°	110.0	121.1	138.0	145.6	148.1
55°	99.0	110.0	120.2	122.7	121.1
57.5°	88.0	99.9	105.8	103.3	103.3
60°	78.7	91.4	93.1	89.7	89.7
62.5°	69.4	82.1	82.1	77.9	77.9
65°	60.9	72.8	71.1	67.7	66.9
67.5°	53.3	64.3	61.8	58.4	57.6
70°	45.7	55.9	53.3	49.1	48.3
72.5°	38.9	48.3	44.9	41.5	39.8
75°	32.2	39.8	38.1	33.9	32.2
77.5°	26.2	32.2	30.5	27.1	25.4
80°	20.3	25.4	24.5	21.2	19.5
82.5°	15.2	19.5	18.6	16.1	13.5
85°	10.2	13.5	12.7	11.0	8.5
87.5°	5.1	9.3	8.5	7.6	4.2
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	14.98	16.43	15.35	16.74	17.05	15.35	16.79	15.71	17.10	17.41
	3H	16.53	17.82	16.91	18.15	18.51	16.69	17.98	17.07	18.31	18.67
	4H	17.10	18.31	17.50	18.66	19.04	17.18	18.38	17.58	18.73	19.11
	6H	17.53	18.64	17.94	19.01	19.41	17.53	18.64	17.94	19.01	19.41
	8H	17.68	18.74	18.11	19.13	19.54	17.65	18.71	18.07	19.10	19.50
	12H	17.80	18.81	18.23	19.20	19.62	17.72	18.74	18.15	19.12	19.55
4H	2H	15.57	16.78	15.97	17.13	17.51	15.86	17.07	16.26	17.42	17.80
	3H	17.39	18.39	17.80	18.79	19.20	17.43	18.43	17.84	18.84	19.24
	4H	18.14	19.04	18.57	19.46	19.90	18.04	18.94	18.47	19.36	19.80
	6H	18.73	19.51	19.19	19.95	20.42	18.52	19.30	18.98	19.75	20.21
	8H	18.94	19.67	19.40	20.11	20.58	18.68	19.42	19.15	19.86	20.33
	12H	19.10	19.76	19.59	20.24	20.71	18.81	19.46	19.29	19.94	20.41
8H	4H	18.42	19.16	18.89	19.60	20.07	18.34	19.07	18.80	19.52	19.98
	6H	19.18	19.79	19.68	20.28	20.76	18.96	19.56	19.46	20.05	20.53
	8H	19.50	20.05	20.02	20.56	21.05	19.21	19.75	19.72	20.26	20.75
	12H	19.79	20.27	20.30	20.76	21.33	19.42	19.90	19.93	20.39	20.96
12H	4H	18.44	19.10	18.93	19.58	20.05	18.37	19.03	18.86	19.51	19.98
	6H	19.24	19.78	19.76	20.30	20.78	19.03	19.58	19.55	20.09	20.58
	8H	19.64	20.12	20.15	20.61	21.18	19.35	19.83	19.86	20.33	20.89