

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: P1058250

Luminaire Tested: S122RDR-H1005D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058250
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-H1005D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

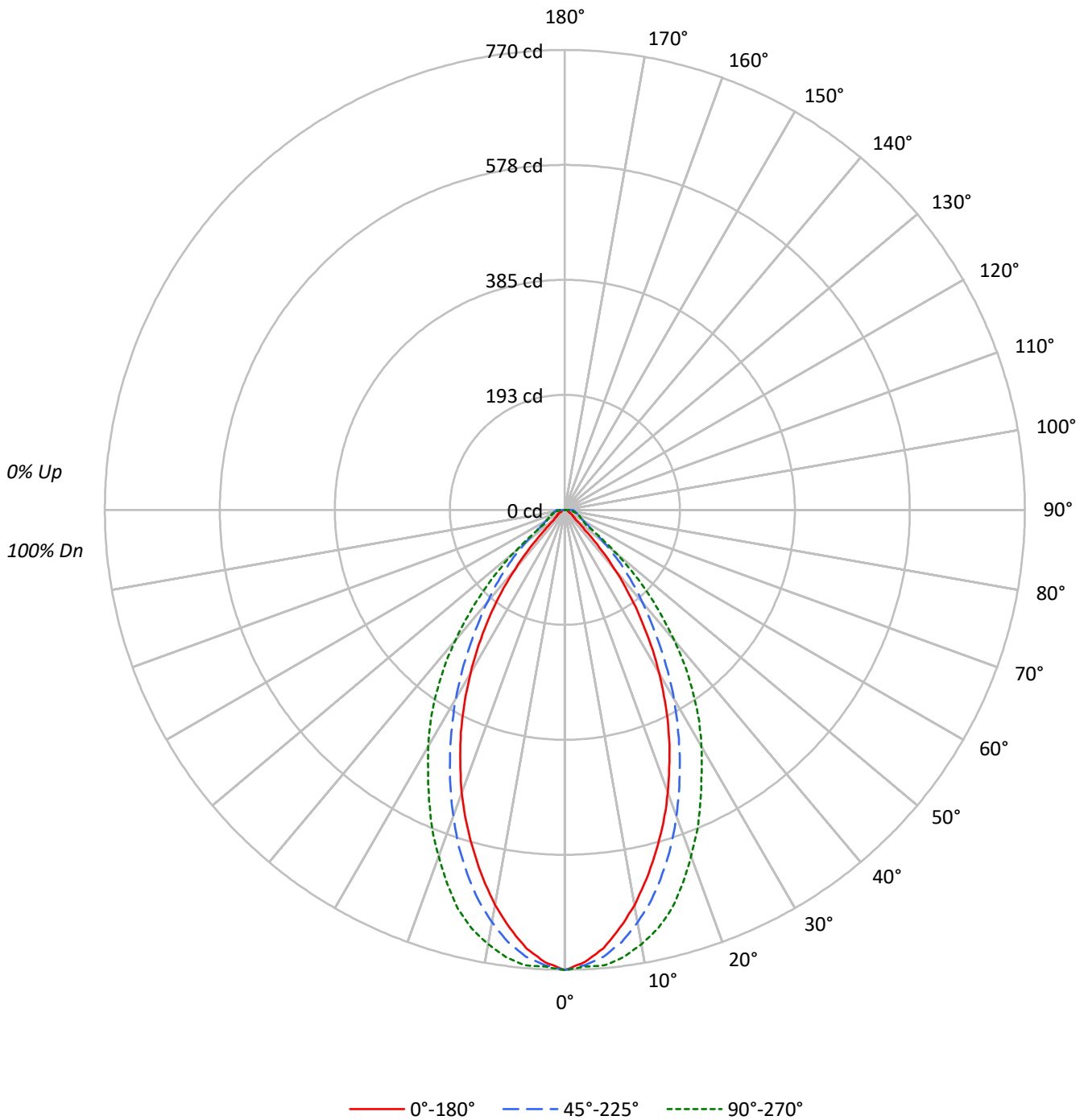
Lumens per Lamp: N/A
Luminaire Lumens: 838.4 lumens
Efficiency: N/A
Efficacy: 23.0 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	14214	14214	14214
5°	13651	13903	14177
10°	12586	13140	13834
15°	11279	12054	13208
20°	9899	10722	12126
25°	8382	9260	10941
30°	6722	7773	9744
35°	4969	6220	8441
40°	3117	4868	6858
45°	1221	3666	5081
50°	603	2477	3115
55°	476	1625	1387
60°	365	1318	1273
65°	271	1236	1236
70°	334	1262	1262
75°	349	1405	1319
80°	521	1838	1445
85°	1037	3133	2096

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 5753 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.4	8.4
10°-20°	177.9	21.2
20°-30°	212.8	25.4
30°-40°	179.1	21.4
40°-50°	102.0	12.2
50°-60°	40.2	4.8
60°-70°	25.3	3.0
70°-80°	18.8	2.2
80°-90°	12.0	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°	461.0	55.0
0°-40°	640.1	76.3
0°-60°	782.3	93.3
0°-90°	838.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	838.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	737	753	751	759	765	68
15°	590	611	631	668	691	165
25°	412	430	455	502	537	188
35°	221	240	276	335	375	137
45°	47	83	140	176	195	44
55°	15	32	50	52	43	13
65°	6	28	28	27	28	7
75°	5	20	20	18	18	5
85°	5	14	15	14	10	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	770.3	770.3	770.3	770.3	770.3
2.5°	758.0	771.5	762.9	764.1	765.4
5°	737.0	753.1	750.6	759.2	765.4
7.5°	706.2	723.5	729.6	744.4	755.5
10°	671.7	691.4	701.3	724.7	738.3
12.5°	632.3	654.5	669.2	698.8	718.5
15°	590.4	611.3	631.0	668.0	691.4
17.5°	548.5	569.4	590.4	631.0	655.7
20°	504.1	523.8	546.0	589.1	617.5
22.5°	457.3	478.2	500.4	544.8	579.3
25°	411.7	430.1	454.8	501.6	537.4
27.5°	363.6	382.1	409.2	457.3	495.5
30°	315.5	334.0	364.8	414.1	457.3
32.5°	267.5	287.2	320.4	374.7	417.8
35°	220.6	240.3	276.1	335.2	374.7
37.5°	175.0	197.2	236.6	294.6	331.5
40°	129.4	155.3	202.1	253.9	284.7
42.5°	86.3	118.3	170.1	213.2	239.1
45°	46.8	82.6	140.5	176.2	194.7
47.5°	25.9	53.0	112.2	140.5	151.6
50°	21.0	37.0	86.3	107.2	108.5
52.5°	17.3	33.3	64.1	76.4	70.3
55°	14.8	32.0	50.5	51.8	43.1
57.5°	12.3	30.8	41.9	37.0	37.0
60°	9.9	30.8	35.7	33.3	34.5
62.5°	7.4	30.8	32.0	29.6	30.8
65°	6.2	28.3	28.3	27.1	28.3
67.5°	6.2	25.9	25.9	24.6	25.9
70°	6.2	24.6	23.4	23.4	23.4
72.5°	4.9	22.2	22.2	21.0	21.0
75°	4.9	19.7	19.7	18.5	18.5
77.5°	4.9	18.5	18.5	17.3	16.0
80°	4.9	16.0	17.3	16.0	13.6
82.5°	4.9	14.8	16.0	14.8	11.1
85°	4.9	13.6	14.8	13.6	9.9
87.5°	3.7	13.6	13.6	11.1	7.4
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	6.91	8.13	7.27	8.44	8.76	8.94	10.16	9.31	10.48	10.79
	3H	8.46	9.54	8.84	9.87	10.24	10.91	12.00	11.29	12.33	12.69
	4H	9.01	10.02	9.41	10.37	10.76	11.83	12.84	12.23	13.19	13.58
	6H	9.56	10.49	9.98	10.87	11.26	12.71	13.64	13.13	14.01	14.41
	8H	9.86	10.74	10.29	11.13	11.53	13.12	14.00	13.55	14.39	14.79
	12H	10.21	11.06	10.65	11.44	11.87	13.56	14.40	13.99	14.79	15.22
4H	2H	8.09	9.10	8.50	9.46	9.84	9.56	10.57	9.96	10.92	11.31
	3H	10.30	11.13	10.71	11.54	11.94	11.80	12.64	12.22	13.04	13.44
	4H	11.35	12.10	11.78	12.52	12.96	12.88	13.62	13.31	14.04	14.49
	6H	12.24	12.89	12.71	13.34	13.81	13.99	14.63	14.45	15.08	15.55
	8H	12.63	13.23	13.10	13.68	14.15	14.51	15.12	14.98	15.56	16.04
	12H	13.05	13.58	13.53	14.07	14.54	15.09	15.62	15.58	16.11	16.58
8H	4H	12.15	12.76	12.62	13.21	13.68	13.37	13.97	13.84	14.42	14.89
	6H	13.53	14.03	14.04	14.53	15.01	14.77	15.26	15.27	15.76	16.24
	8H	14.25	14.70	14.78	15.21	15.71	15.51	15.95	16.03	16.47	16.96
	12H	15.00	15.40	15.52	15.89	16.47	16.34	16.73	16.86	17.23	17.80
12H	4H	12.31	12.85	12.80	13.33	13.81	13.47	14.00	13.96	14.49	14.96
	6H	13.86	14.31	14.39	14.83	15.32	14.98	15.43	15.51	15.95	16.44
	8H	14.78	15.17	15.30	15.67	16.24	15.87	16.26	16.39	16.76	17.33