

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: P1058265

Luminaire Tested: S122RDR-H1005D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058265
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D940-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE 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

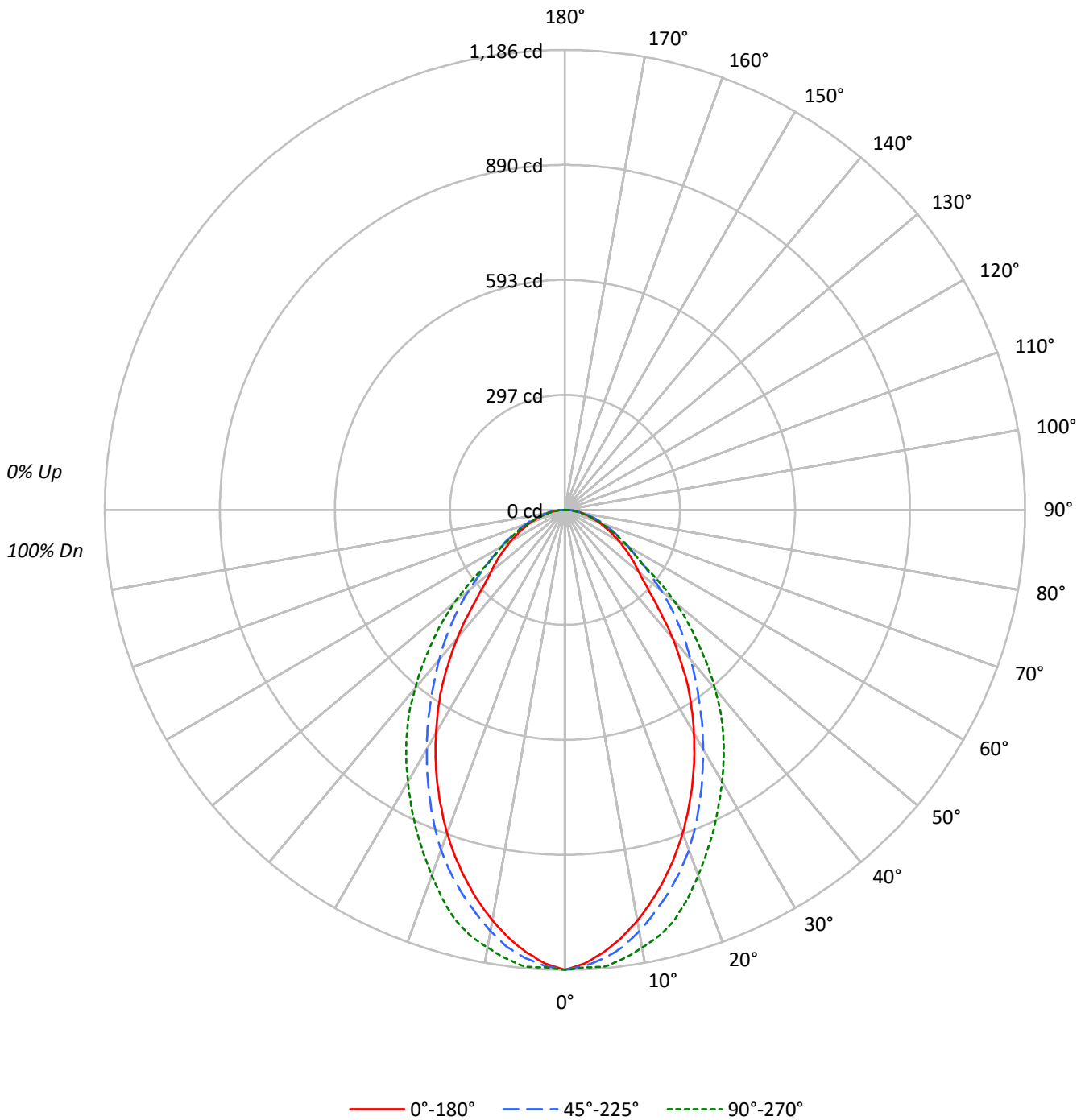
Lumens per Lamp: N/A
Luminaire Lumens: 1933.7 lumens
Efficiency: N/A
Efficacy: 53.0 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	110	106	103	100	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	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	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	46	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	40	35	46	39	35	45	39	35	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21886	21886	21886
5°	21214	21498	21900
10°	20144	20671	21484
15°	18857	19564	20905
20°	17432	18333	19709
25°	15840	16775	18489
30°	14159	15164	17257
35°	12412	13590	16032
40°	10384	12136	14470
45°	8319	10749	12646
50°	7139	9264	10619
55°	6524	7879	7837
60°	5931	6968	6824
65°	5401	6235	5960
70°	4953	5713	5298
75°	4634	5276	4634
80°	4336	4877	4070
85°	4319	5124	3515

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12646 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.5	5.7
10°-20°	289.9	15.0
20°-30°	382.3	19.8
30°-40°	385.0	19.9
40°-50°	313.4	16.2
50°-60°	213.7	11.0
60°-70°	138.7	7.2
70°-80°	76.4	3.9
80°-90°	24.9	1.3
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°	781.7	40.4
0°-40°	1166.7	60.3
0°-60°	1693.7	87.6
0°-90°	1933.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1933.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1145	1167	1161	1171	1182	107
15°	987	1013	1024	1066	1094	277
25°	778	804	824	861	908	357
35°	551	579	603	656	712	342
45°	319	358	412	448	485	251
55°	203	223	245	246	244	182
65°	124	147	143	135	136	123
75°	65	80	74	66	65	69
85°	20	27	24	19	17	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1186.1	1186.1	1186.1	1186.1	1186.1
2.5°	1170.8	1189.9	1177.2	1178.4	1181.0
5°	1145.3	1167.0	1160.6	1170.8	1182.3
7.5°	1113.4	1135.1	1137.6	1152.9	1167.0
10°	1075.1	1099.4	1103.2	1126.2	1146.6
12.5°	1033.1	1059.8	1064.9	1098.1	1124.9
15°	987.1	1012.7	1024.1	1066.2	1094.3
17.5°	938.7	962.9	980.8	1019.0	1050.9
20°	887.7	910.6	933.6	968.0	1003.7
22.5°	832.8	858.3	880.0	914.4	955.3
25°	778.0	803.5	823.9	860.9	908.1
27.5°	721.9	747.4	767.8	807.3	858.3
30°	664.5	691.3	711.7	756.3	809.9
32.5°	608.4	635.1	658.1	705.3	761.4
35°	551.0	579.0	603.3	655.5	711.7
37.5°	489.7	521.6	552.2	604.5	659.4
40°	431.1	466.8	503.8	552.2	600.7
42.5°	372.4	411.9	457.9	498.7	543.3
45°	318.8	358.4	411.9	447.7	484.6
47.5°	276.8	309.9	367.3	396.6	429.8
50°	248.7	271.7	322.7	345.6	369.9
52.5°	225.7	244.9	280.6	295.9	308.6
55°	202.8	223.2	244.9	246.1	243.6
57.5°	179.8	202.8	214.3	205.3	210.4
60°	160.7	183.7	188.8	179.8	184.9
62.5°	140.3	165.8	165.8	156.9	159.4
65°	123.7	146.7	142.8	135.2	136.5
67.5°	107.1	130.1	123.7	116.1	116.1
70°	91.8	113.5	105.9	98.2	98.2
72.5°	77.8	95.7	90.6	81.6	80.3
75°	65.0	80.3	74.0	66.3	65.0
77.5°	52.3	65.0	59.9	53.6	51.0
80°	40.8	52.3	45.9	40.8	38.3
82.5°	30.6	39.5	34.4	29.3	26.8
85°	20.4	26.8	24.2	19.1	16.6
87.5°	10.2	17.9	15.3	12.8	10.2
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	17.44	18.88	17.81	19.19	19.51	17.69	19.12	18.05	19.44	19.75
	3H	18.97	20.26	19.35	20.58	20.95	19.05	20.33	19.42	20.66	21.02
	4H	19.53	20.74	19.93	21.08	21.46	19.53	20.73	19.93	21.08	21.46
	6H	19.95	21.07	20.37	21.43	21.83	19.87	20.99	20.29	21.35	21.75
	8H	20.11	21.16	20.53	21.55	21.96	19.98	21.04	20.41	21.43	21.83
	12H	20.22	21.23	20.65	21.61	22.04	20.05	21.06	20.48	21.45	21.88
4H	2H	18.01	19.22	18.41	19.57	19.95	18.21	19.41	18.61	19.76	20.14
	3H	19.82	20.81	20.23	21.22	21.62	19.79	20.78	20.20	21.19	21.59
	4H	20.56	21.45	20.99	21.87	22.31	20.38	21.28	20.81	21.69	22.13
	6H	21.14	21.92	21.60	22.37	22.83	20.85	21.63	21.31	22.07	22.53
	8H	21.35	22.08	21.82	22.53	23.00	21.00	21.73	21.46	22.17	22.64
	12H	21.52	22.17	22.00	22.65	23.12	21.11	21.76	21.59	22.24	22.71
8H	4H	20.82	21.55	21.29	22.00	22.47	20.67	21.40	21.14	21.84	22.31
	6H	21.58	22.18	22.08	22.67	23.15	21.26	21.86	21.76	22.35	22.83
	8H	21.90	22.44	22.42	22.95	23.44	21.48	22.02	22.00	22.53	23.02
	12H	22.18	22.66	22.70	23.15	23.72	21.67	22.14	22.18	22.64	23.20
12H	4H	20.84	21.49	21.32	21.97	22.44	20.70	21.35	21.19	21.83	22.30
	6H	21.62	22.16	22.14	22.68	23.17	21.33	21.87	21.84	22.38	22.87
	8H	22.02	22.50	22.53	22.99	23.56	21.61	22.09	22.12	22.58	23.15