

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: P1058472

Luminaire Tested: S122RDR-H675D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058472
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-H675D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

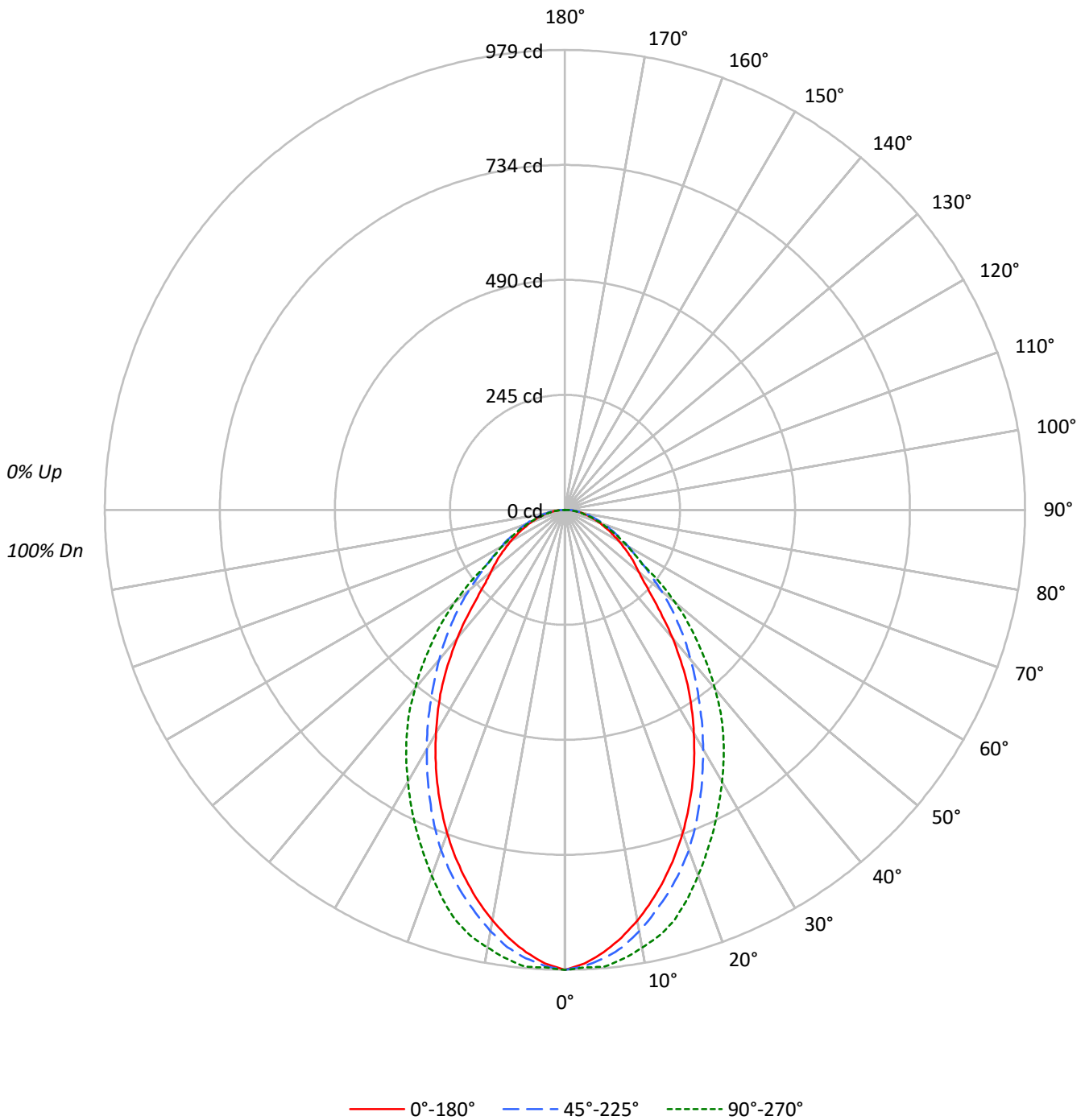
Lumens per Lamp: N/A
Luminaire Lumens: 1596.3 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18069	18069	18069
5°	17513	17747	18078
10°	16631	17064	17735
15°	15567	16150	17256
20°	14390	15134	16271
25°	13075	13847	15262
30°	11687	12518	14246
35°	10245	11218	13234
40°	8573	10018	11945
45°	6868	8875	10441
50°	5894	7648	8764
55°	5385	6502	6470
60°	4897	5750	5635
65°	4458	5148	4921
70°	4090	4715	4375
75°	3829	4356	3829
80°	3581	4027	3358
85°	3557	4234	2901

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10441 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	5.7
10°-20°	239.3	15.0
20°-30°	315.6	19.8
30°-40°	317.8	19.9
40°-50°	258.7	16.2
50°-60°	176.4	11.0
60°-70°	114.5	7.2
70°-80°	63.0	3.9
80°-90°	20.5	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°	645.3	40.4
0°-40°	963.2	60.3
0°-60°	1398.2	87.6
0°-90°	1596.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1596.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	979	979	979	979	979	
5°	946	963	958	966	976	88
15°	815	836	845	880	903	228
25°	642	663	680	711	750	294
35°	455	478	498	541	588	282
45°	263	296	340	370	400	207
55°	167	184	202	203	201	150
65°	102	121	118	112	113	102
75°	54	66	61	55	54	57
85°	17	22	20	16	14	18
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	979.2	979.2	979.2	979.2	979.2
2.5°	966.5	982.3	971.8	972.8	974.9
5°	945.5	963.4	958.1	966.5	976.0
7.5°	919.1	937.0	939.1	951.8	963.4
10°	887.6	907.6	910.7	929.7	946.5
12.5°	852.8	874.9	879.1	906.5	928.6
15°	814.9	836.0	845.4	880.2	903.3
17.5°	774.9	794.9	809.6	841.2	867.6
20°	732.8	751.7	770.7	799.1	828.6
22.5°	687.5	708.6	726.5	754.9	788.6
25°	642.2	663.3	680.1	710.7	749.6
27.5°	595.9	617.0	633.8	666.5	708.6
30°	548.5	570.6	587.5	624.3	668.6
32.5°	502.2	524.3	543.3	582.2	628.6
35°	454.8	478.0	498.0	541.2	587.5
37.5°	404.3	430.6	455.9	499.1	544.3
40°	355.9	385.3	415.9	455.9	495.9
42.5°	307.4	340.1	378.0	411.7	448.5
45°	263.2	295.9	340.1	369.6	400.1
47.5°	228.5	255.8	303.2	327.4	354.8
50°	205.3	224.3	266.4	285.3	305.3
52.5°	186.4	202.1	231.6	244.3	254.8
55°	167.4	184.2	202.1	203.2	201.1
57.5°	148.5	167.4	176.9	169.5	173.7
60°	132.7	151.6	155.8	148.5	152.7
62.5°	115.8	136.9	136.9	129.5	131.6
65°	102.1	121.1	117.9	111.6	112.7
67.5°	88.4	107.4	102.1	95.8	95.8
70°	75.8	93.7	87.4	81.1	81.1
72.5°	64.2	79.0	74.8	67.4	66.3
75°	53.7	66.3	61.1	54.7	53.7
77.5°	43.2	53.7	49.5	44.2	42.1
80°	33.7	43.2	37.9	33.7	31.6
82.5°	25.3	32.6	28.4	24.2	22.1
85°	16.8	22.1	20.0	15.8	13.7
87.5°	8.4	14.7	12.6	10.5	8.4
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	16.77	18.21	17.14	18.53	18.84	17.02	18.46	17.39	18.77	19.09
	3H	18.30	19.59	18.68	19.92	20.28	18.38	19.67	18.76	20.00	20.36
	4H	18.86	20.07	19.26	20.42	20.80	18.86	20.07	19.26	20.42	20.80
	6H	19.29	20.40	19.70	20.77	21.16	19.21	20.32	19.62	20.69	21.08
	8H	19.44	20.50	19.87	20.89	21.29	19.32	20.37	19.74	20.76	21.17
	12H	19.55	20.57	19.99	20.95	21.38	19.39	20.40	19.82	20.78	21.21
4H	2H	17.35	18.55	17.75	18.90	19.28	17.54	18.75	17.94	19.10	19.48
	3H	19.15	20.15	19.56	20.55	20.95	19.12	20.12	19.53	20.52	20.92
	4H	19.89	20.79	20.33	21.21	21.65	19.71	20.61	20.15	21.03	21.47
	6H	20.48	21.26	20.94	21.70	22.16	20.18	20.96	20.64	21.41	21.87
	8H	20.69	21.42	21.15	21.86	22.33	20.33	21.06	20.80	21.51	21.97
	12H	20.85	21.50	21.34	21.98	22.46	20.44	21.09	20.92	21.57	22.04
8H	4H	20.16	20.89	20.62	21.33	21.80	20.00	20.73	20.47	21.18	21.65
	6H	20.91	21.51	21.41	22.01	22.49	20.59	21.20	21.09	21.69	22.17
	8H	21.24	21.78	21.75	22.29	22.78	20.82	21.36	21.33	21.87	22.36
	12H	21.52	22.00	22.03	22.49	23.06	21.00	21.48	21.51	21.97	22.54
12H	4H	20.17	20.82	20.65	21.30	21.77	20.04	20.69	20.52	21.17	21.64
	6H	20.96	21.50	21.48	22.01	22.50	20.66	21.20	21.18	21.71	22.20
	8H	21.35	21.83	21.87	22.33	22.89	20.95	21.42	21.46	21.92	22.48