

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: P1058463

Luminaire Tested: S122RDR-H675D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058463  
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-H675D840-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, 80 CRI LEDS  
Ballast/Driver: -

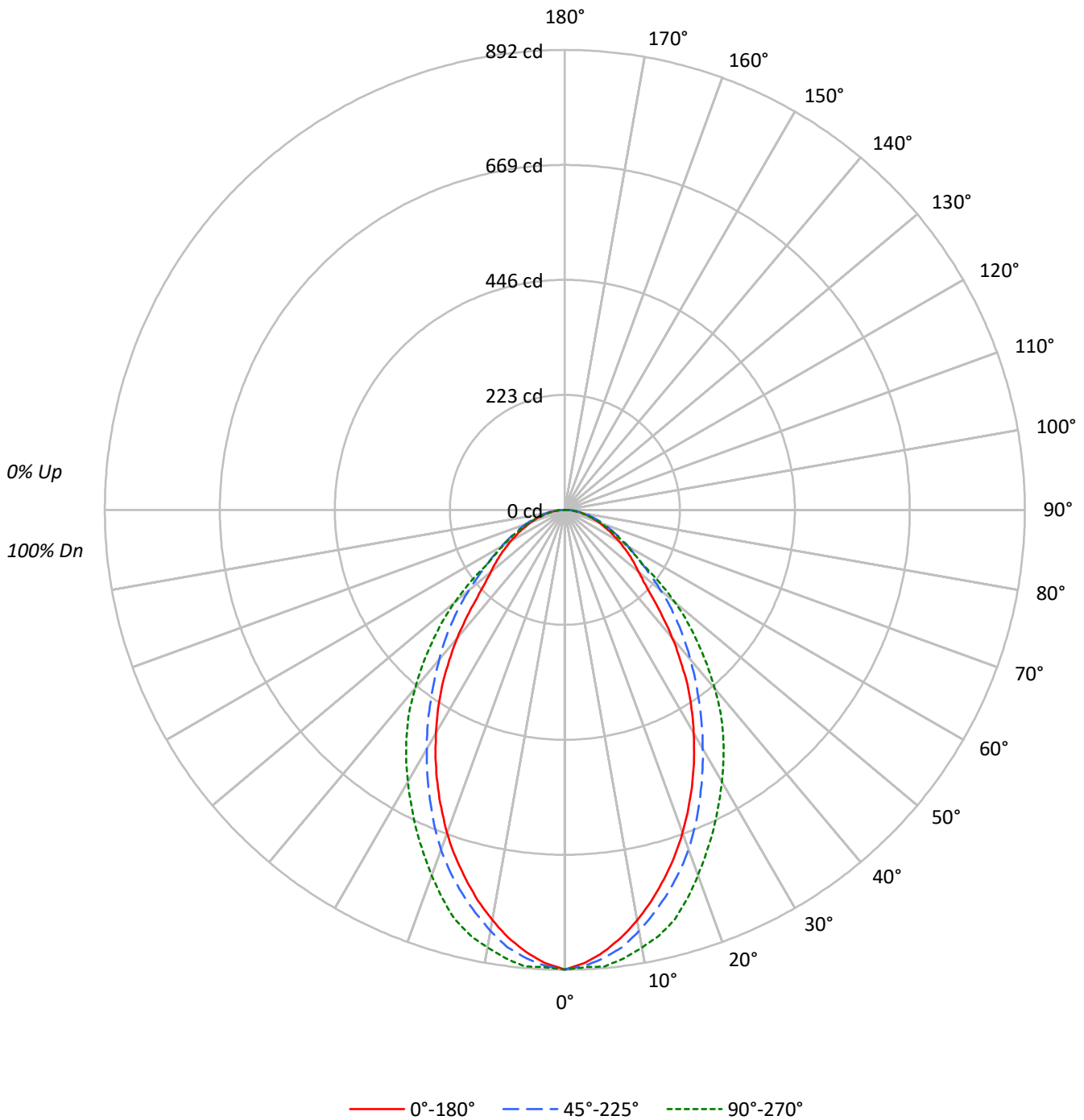
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1453.6 lumens  
Efficiency: N/A  
Efficacy: 61.9 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				
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	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	39	35	46	39	35	45	39	35	44	38	34	33				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16452	16452	16452
5°	15946	16161	16463
10°	15143	15539	16150
15°	14177	14708	15714
20°	13104	13781	14816
25°	11907	12609	13898
30°	10643	11399	12972
35°	9330	10216	12052
40°	7807	9122	10878
45°	6255	8082	9507
50°	5368	6964	7981
55°	4903	5923	5890
60°	4458	5237	5130
65°	4061	4689	4480
70°	3723	4295	3982
75°	3486	3964	3486
80°	3262	3666	3060
85°	3239	3853	2646

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9507 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.3	5.7
10°-20°	217.9	15.0
20°-30°	287.4	19.8
30°-40°	289.4	19.9
40°-50°	235.6	16.2
50°-60°	160.6	11.0
60°-70°	104.2	7.2
70°-80°	57.4	3.9
80°-90°	18.7	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°	587.6	40.4
0°-40°	877.1	60.3
0°-60°	1273.2	87.6
0°-90°	1453.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1453.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	861	877	872	880	889	81
15°	742	761	770	802	823	208
25°	585	604	619	647	683	268
35°	414	435	454	493	535	257
45°	240	269	310	336	364	189
55°	152	168	184	185	183	137
65°	93	110	107	102	103	92
75°	49	60	56	50	49	52
85°	15	20	18	14	12	17
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	891.6	891.6	891.6	891.6	891.6
2.5°	880.1	894.5	884.9	885.9	887.8
5°	860.9	877.2	872.5	880.1	888.8
7.5°	837.0	853.3	855.2	866.7	877.2
10°	808.2	826.4	829.3	846.6	861.9
12.5°	776.6	796.7	800.5	825.5	845.6
15°	742.1	761.2	769.9	801.5	822.6
17.5°	705.6	723.8	737.3	766.0	790.0
20°	667.3	684.5	701.8	727.7	754.5
22.5°	626.1	645.2	661.5	687.4	718.1
25°	584.8	604.0	619.3	647.1	682.6
27.5°	542.6	561.8	577.2	606.9	645.2
30°	499.5	519.6	535.0	568.5	608.8
32.5°	457.3	477.5	494.7	530.2	572.4
35°	414.2	435.3	453.5	492.8	535.0
37.5°	368.2	392.1	415.1	454.4	495.7
40°	324.1	350.9	378.7	415.1	451.6
42.5°	280.0	309.7	344.2	374.9	408.4
45°	239.7	269.4	309.7	336.5	364.3
47.5°	208.0	233.0	276.1	298.2	323.1
50°	187.0	204.2	242.6	259.8	278.0
52.5°	169.7	184.1	210.9	222.4	232.0
55°	152.4	167.8	184.1	185.0	183.1
57.5°	135.2	152.4	161.1	154.4	158.2
60°	120.8	138.1	141.9	135.2	139.0
62.5°	105.5	124.6	124.6	117.9	119.8
65°	93.0	110.3	107.4	101.6	102.6
67.5°	80.5	97.8	93.0	87.2	87.2
70°	69.0	85.3	79.6	73.8	73.8
72.5°	58.5	71.9	68.1	61.4	60.4
75°	48.9	60.4	55.6	49.9	48.9
77.5°	39.3	48.9	45.1	40.3	38.3
80°	30.7	39.3	34.5	30.7	28.8
82.5°	23.0	29.7	25.9	22.1	20.1
85°	15.3	20.1	18.2	14.4	12.5
87.5°	7.7	13.4	11.5	9.6	7.7
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	16.45	17.89	16.81	18.20	18.51	16.70	18.14	17.06	18.45	18.76
	3H	17.98	19.26	18.35	19.59	19.95	18.05	19.34	18.43	19.67	20.03
	4H	18.54	19.74	18.94	20.09	20.47	18.54	19.74	18.94	20.09	20.47
	6H	18.96	20.07	19.38	20.44	20.83	18.88	20.00	19.30	20.36	20.76
	8H	19.11	20.17	19.54	20.56	20.96	18.99	20.05	19.42	20.44	20.84
	12H	19.23	20.24	19.66	20.62	21.05	19.06	20.07	19.49	20.45	20.88
4H	2H	17.02	18.23	17.42	18.57	18.95	17.22	18.43	17.62	18.78	19.16
	3H	18.82	19.82	19.24	20.22	20.63	18.80	19.79	19.21	20.19	20.60
	4H	19.57	20.46	20.00	20.88	21.32	19.39	20.29	19.82	20.70	21.14
	6H	20.15	20.93	20.61	21.38	21.84	19.86	20.64	20.32	21.08	21.54
	8H	20.36	21.09	20.83	21.54	22.01	20.01	20.74	20.47	21.18	21.65
	12H	20.53	21.18	21.01	21.66	22.13	20.12	20.77	20.60	21.25	21.72
8H	4H	19.83	20.56	20.30	21.01	21.47	19.68	20.41	20.15	20.85	21.32
	6H	20.59	21.19	21.09	21.68	22.16	20.27	20.87	20.77	21.36	21.84
	8H	20.91	21.45	21.43	21.96	22.45	20.49	21.03	21.01	21.54	22.03
	12H	21.19	21.67	21.70	22.16	22.73	20.68	21.15	21.19	21.65	22.21
12H	4H	19.85	20.49	20.33	20.97	21.45	19.71	20.36	20.20	20.84	21.31
	6H	20.63	21.17	21.15	21.68	22.17	20.34	20.88	20.85	21.39	21.88
	8H	21.03	21.51	21.54	22.00	22.57	20.62	21.10	21.14	21.59	22.16