

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: P1061857

Luminaire Tested: S125RDR-H1090D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061857  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D840-X4F0-XX-UDD-BVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

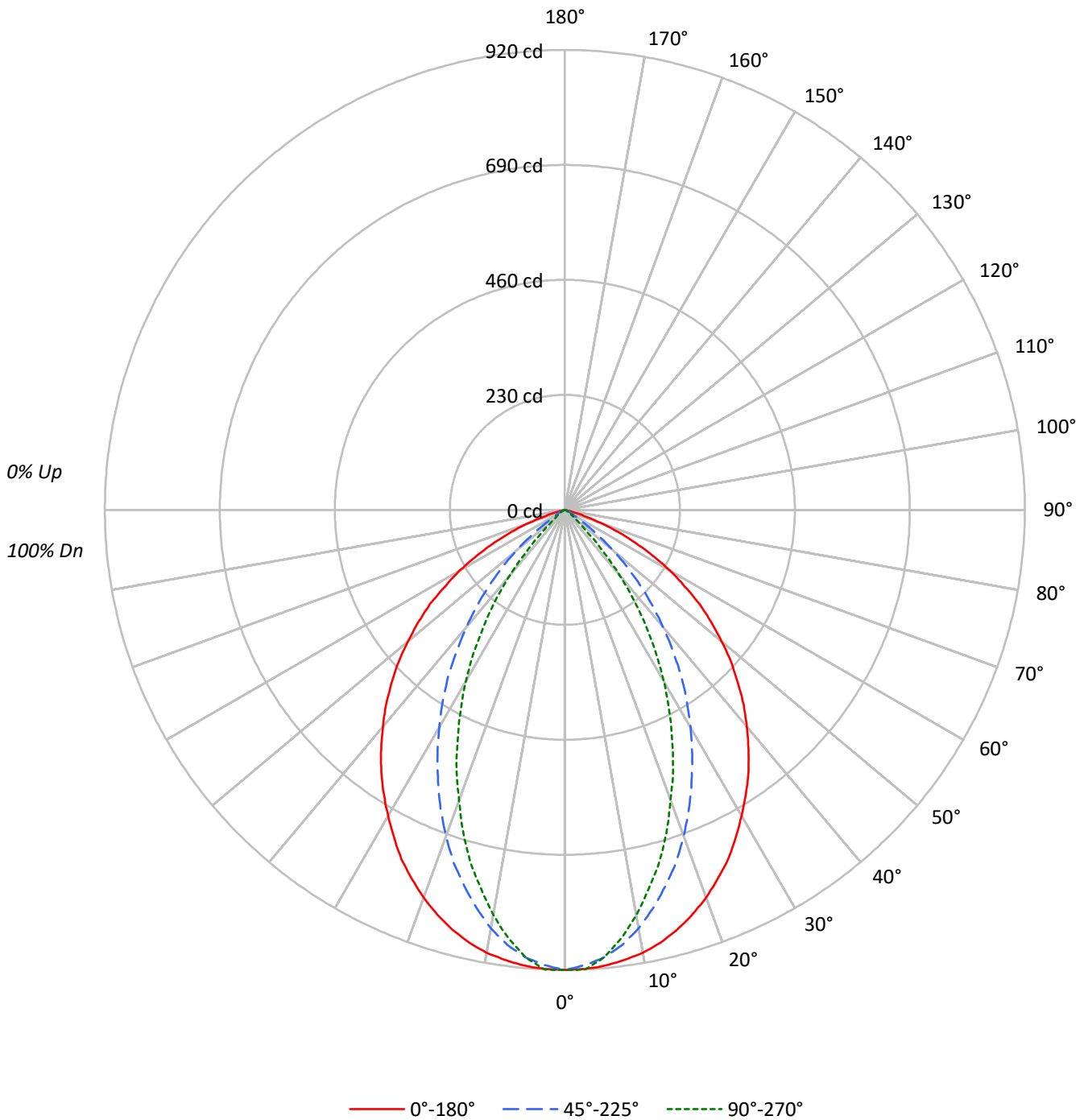
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1189.1 lumens  
Efficiency: N/A  
Efficacy: 38.1 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	57	67	61	57	66	61	57	65	60	56	54
7	76	65	58	53	74	64	57	52	63	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	6337	6337	6337
5°	6328	6211	6211
10°	6291	5943	5756
15°	6197	5549	5202
20°	6050	5089	4529
25°	5867	4557	3856
30°	5619	3997	3148
35°	5379	3409	2358
40°	5086	2750	1528
45°	4765	2081	662
50°	4383	1327	247
55°	3951	583	175
60°	3345	251	117
65°	2532	158	59
70°	1540	72	24
75°	322	32	32
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4765 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.8	7.1
10°-20°	221.2	18.6
20°-30°	284.0	23.9
30°-40°	267.3	22.5
40°-50°	186.9	15.7
50°-60°	99.8	8.4
60°-70°	39.8	3.3
70°-80°	5.1	0.4
80°-90°	0.0	0.0
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°	590.0	49.6
0°-40°	857.4	72.1
0°-60°	1144.1	96.2
0°-90°	1189.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1189.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	916	913	899	901	899	87
15°	869	842	778	742	730	245
25°	772	704	600	534	508	354
35°	640	538	406	313	280	399
45°	489	367	214	103	68	377
55°	329	202	49	17	15	292
65°	155	62	10	5	4	155
75°	12	4	1	1	1	24
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	920.4	920.4	920.4	920.4	920.4
2.5°	919.2	920.4	911.9	919.2	920.4
5°	915.6	913.2	898.6	901.0	898.6
7.5°	908.3	902.2	877.9	869.4	864.6
10°	899.8	886.4	850.0	831.8	823.3
12.5°	886.4	867.0	816.0	788.1	775.9
15°	869.4	841.5	778.4	741.9	729.8
17.5°	848.8	812.4	739.5	694.6	676.4
20°	825.7	777.2	694.6	641.2	618.1
22.5°	799.0	743.2	648.4	588.9	565.9
25°	772.3	704.3	599.9	534.3	507.6
27.5°	739.5	664.2	551.3	480.9	451.7
30°	706.7	624.2	502.7	426.2	395.9
32.5°	673.9	581.7	454.1	369.1	338.8
35°	639.9	537.9	405.6	313.3	280.5
37.5°	603.5	494.2	353.4	259.9	225.9
40°	565.9	451.7	306.0	207.6	170.0
42.5°	529.4	409.2	258.6	156.6	115.4
45°	489.4	366.7	213.7	103.2	68.0
47.5°	451.7	325.4	167.6	59.5	35.2
50°	409.2	282.9	123.9	31.6	23.1
52.5°	369.1	241.6	82.6	20.6	18.2
55°	329.1	201.6	48.6	17.0	14.6
57.5°	282.9	162.7	26.7	13.4	10.9
60°	242.9	127.5	18.2	9.7	8.5
62.5°	196.7	93.5	13.4	7.3	6.1
65°	155.4	61.9	9.7	4.9	3.6
67.5°	115.4	36.4	6.1	2.4	2.4
70°	76.5	19.4	3.6	1.2	1.2
72.5°	40.1	8.5	2.4	1.2	1.2
75°	12.1	3.6	1.2	1.2	1.2
77.5°	0.0	1.2	0.0	0.0	1.2
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	15.36	16.62	15.72	16.93	17.25	0.00	0.00	0.00	0.00	0.00
	3H	15.94	17.06	16.32	17.39	17.75	0.00	0.00	0.00	0.00	0.00
	4H	15.91	16.94	16.31	17.29	17.67	0.00	0.00	0.00	0.00	0.00
	6H	15.82	16.77	16.24	17.14	17.53	0.00	0.00	0.00	0.00	0.00
	8H	15.77	16.67	16.21	17.06	17.47	0.00	0.00	0.00	0.00	0.00
	12H	15.73	16.58	16.16	16.96	17.40	0.00	0.00	0.00	0.00	0.00
4H	2H	15.13	16.16	15.54	16.52	16.90	0.00	0.00	0.00	0.00	0.00
	3H	15.72	16.56	16.14	16.96	17.37	0.00	0.00	0.00	0.00	0.00
	4H	15.67	16.42	16.11	16.84	17.28	0.00	0.00	0.00	0.00	0.00
	6H	15.59	16.22	16.05	16.67	17.14	0.00	0.00	0.00	0.00	0.00
	8H	15.53	16.12	16.00	16.57	17.04	0.00	0.00	0.00	0.00	0.00
	12H	15.48	16.00	15.96	16.48	16.96	0.00	0.00	0.00	0.00	0.00
8H	4H	15.53	16.12	16.00	16.57	17.04	0.00	0.00	0.00	0.00	0.00
	6H	15.42	15.90	15.92	16.40	16.88	0.00	0.00	0.00	0.00	0.00
	8H	15.35	15.78	15.88	16.30	16.80	0.00	0.00	0.00	0.00	0.00
	12H	15.30	15.68	15.82	16.18	16.75	0.00	0.00	0.00	0.00	0.00
12H	4H	15.48	16.00	15.96	16.48	16.96	0.00	0.00	0.00	0.00	0.00
	6H	15.35	15.78	15.88	16.30	16.80	0.00	0.00	0.00	0.00	0.00
	8H	15.30	15.68	15.82	16.18	16.75	0.00	0.00	0.00	0.00	0.00