

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: P1061905

Luminaire Tested: S125RDR-H1090D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061905  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D940-X4F0-XX-UDD-SVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

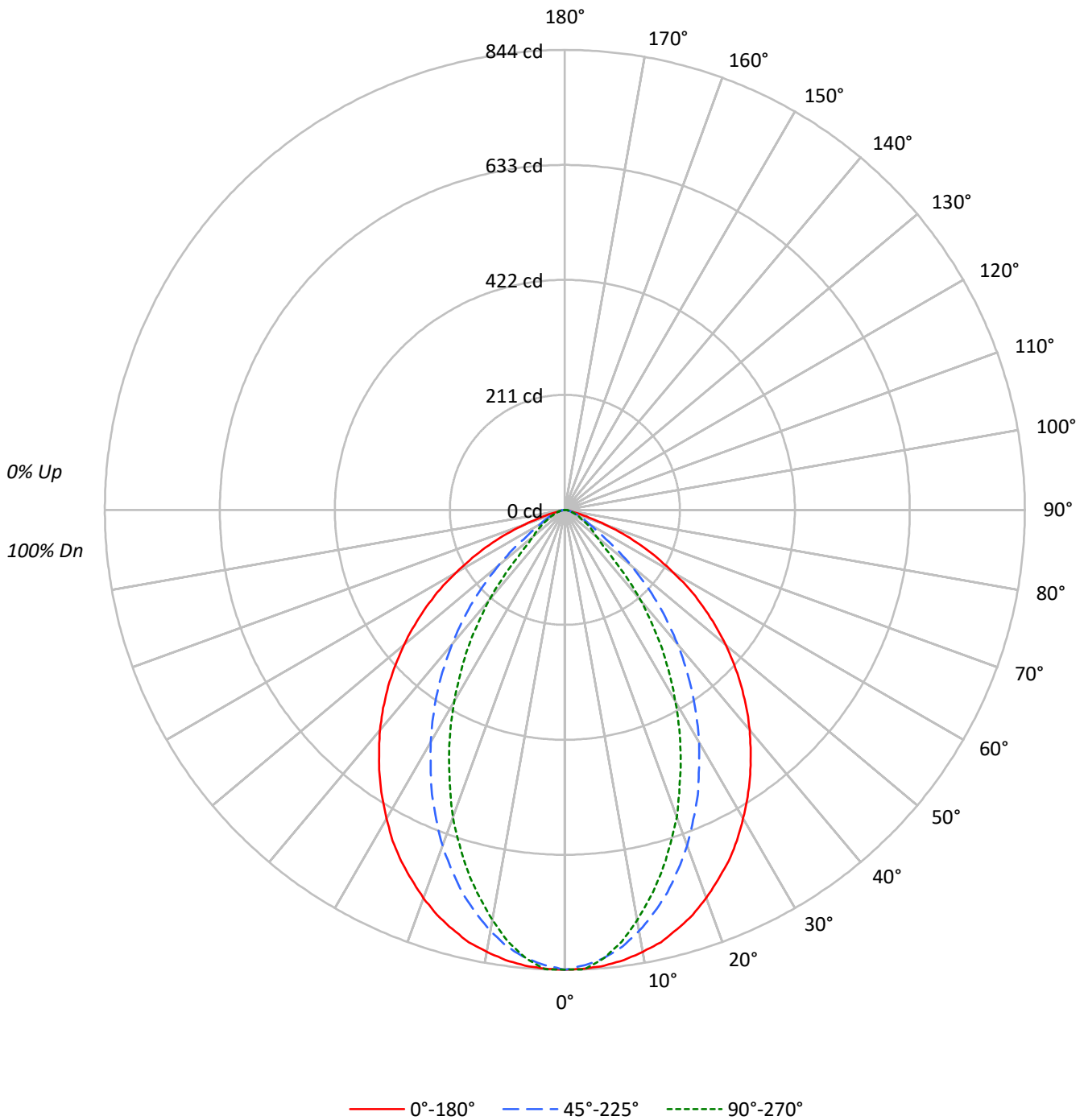
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1220.5 lumens  
Efficiency: N/A  
Efficacy: 39.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01  
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	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	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63				
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57				
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52				
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47				
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43				
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36				

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

	0°	45°	90°
0°	5810	5810	5810
5°	5803	5707	5707
10°	5757	5488	5345
15°	5679	5182	4899
20°	5555	4808	4400
25°	5401	4383	3821
30°	5200	3913	3222
35°	4984	3425	2614
40°	4742	2891	1937
45°	4459	2318	1169
50°	4124	1700	804
55°	3720	1043	670
60°	3160	709	532
65°	2498	541	419
70°	1576	389	346
75°	513	285	285
80°	170	214	254
85°	87	166	166

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4459 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	6.4
10°-20°	206.1	16.9
20°-30°	271.1	22.2
30°-40°	266.4	21.8
40°-50°	201.5	16.5
50°-60°	122.2	10.0
60°-70°	57.7	4.7
70°-80°	15.1	1.2
80°-90°	2.3	0.2
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°	555.3	45.5
0°-40°	821.7	67.3
0°-60°	1145.5	93.9
0°-90°	1220.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1220.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	840	838	826	827	826	80
15°	797	775	727	699	687	224
25°	711	657	577	523	503	327
35°	593	514	408	336	311	370
45°	458	360	238	151	120	353
55°	310	212	87	59	56	276
65°	153	78	33	28	26	151
75°	19	13	11	11	11	30
85°	1	1	2	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	843.9	843.9	843.9	843.9	843.9
2.5°	842.8	842.8	836.4	843.9	843.9
5°	839.6	837.5	825.7	826.7	825.7
7.5°	833.2	828.9	808.5	803.2	798.9
10°	823.5	814.9	784.9	772.1	764.5
12.5°	812.8	797.8	757.0	738.8	727.0
15°	796.7	775.3	727.0	699.1	687.3
17.5°	779.6	748.5	691.6	658.4	643.4
20°	758.1	721.7	656.2	615.5	600.5
22.5°	734.5	691.6	615.5	570.5	550.1
25°	710.9	657.3	576.9	523.3	502.9
27.5°	684.1	623.0	532.9	477.2	454.7
30°	654.1	588.7	492.2	434.3	405.3
32.5°	624.1	553.3	449.3	386.0	357.1
35°	593.0	513.6	407.5	335.6	311.0
37.5°	559.7	476.1	364.6	289.5	260.6
40°	527.6	438.6	321.7	242.3	215.5
42.5°	493.3	401.0	278.8	196.2	166.2
45°	457.9	360.3	238.1	151.2	120.1
47.5°	421.4	323.8	197.3	111.5	90.1
50°	385.0	285.2	158.7	82.6	75.1
52.5°	347.4	247.7	120.1	68.6	65.4
55°	309.9	212.3	86.9	59.0	55.8
57.5°	271.3	173.7	65.4	50.4	47.2
60°	229.5	139.4	51.5	41.8	38.6
62.5°	190.9	109.4	41.8	34.3	32.2
65°	153.3	78.3	33.2	27.9	25.7
67.5°	114.7	52.5	25.7	21.4	21.4
70°	78.3	34.3	19.3	17.2	17.2
72.5°	47.2	20.4	13.9	13.9	13.9
75°	19.3	12.9	10.7	10.7	10.7
77.5°	6.4	7.5	7.5	8.6	8.6
80°	4.3	4.3	5.4	6.4	6.4
82.5°	2.1	3.2	3.2	4.3	4.3
85°	1.1	1.1	2.1	2.1	2.1
87.5°	0.0	0.0	0.0	1.1	1.1
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	15.44	16.77	15.81	17.09	17.40	6.10	7.43	6.46	7.74	8.06
	3H	16.15	17.33	16.53	17.66	18.02	6.88	8.06	7.26	8.39	8.75
	4H	16.16	17.26	16.57	17.61	17.99	7.13	8.22	7.53	8.57	8.96
	6H	16.10	17.10	16.51	17.47	17.87	7.31	8.31	7.72	8.68	9.08
	8H	16.05	17.01	16.48	17.40	17.80	7.35	8.30	7.78	8.69	9.10
	12H	16.01	16.92	16.45	17.31	17.74	7.36	8.27	7.79	8.65	9.08
4H	2H	15.27	16.37	15.68	16.72	17.10	6.58	7.68	6.99	8.03	8.41
	3H	16.02	16.91	16.43	17.31	17.72	7.49	8.38	7.90	8.79	9.19
	4H	16.04	16.83	16.47	17.25	17.69	7.80	8.60	8.24	9.02	9.46
	6H	15.98	16.66	16.44	17.11	17.57	8.06	8.75	8.53	9.19	9.66
	8H	15.92	16.56	16.39	17.01	17.48	8.13	8.77	8.60	9.21	9.68
	12H	15.88	16.44	16.37	16.93	17.40	8.15	8.72	8.64	9.20	9.67
8H	4H	15.92	16.56	16.39	17.01	17.48	7.92	8.55	8.39	9.00	9.47
	6H	15.85	16.36	16.35	16.86	17.34	8.23	8.75	8.74	9.25	9.73
	8H	15.79	16.26	16.31	16.77	17.26	8.34	8.81	8.86	9.32	9.81
	12H	15.75	16.16	16.27	16.66	17.23	8.40	8.81	8.91	9.31	9.88
12H	4H	15.88	16.44	16.36	16.92	17.40	7.89	8.45	8.37	8.93	9.41
	6H	15.79	16.25	16.31	16.77	17.26	8.20	8.67	8.73	9.19	9.68
	8H	15.75	16.16	16.27	16.66	17.23	8.34	8.76	8.86	9.25	9.82