

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: P1062030

Luminaire Tested: S125RDR-H375D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062030  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H375D850-X4F0-XX-UDD-BVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

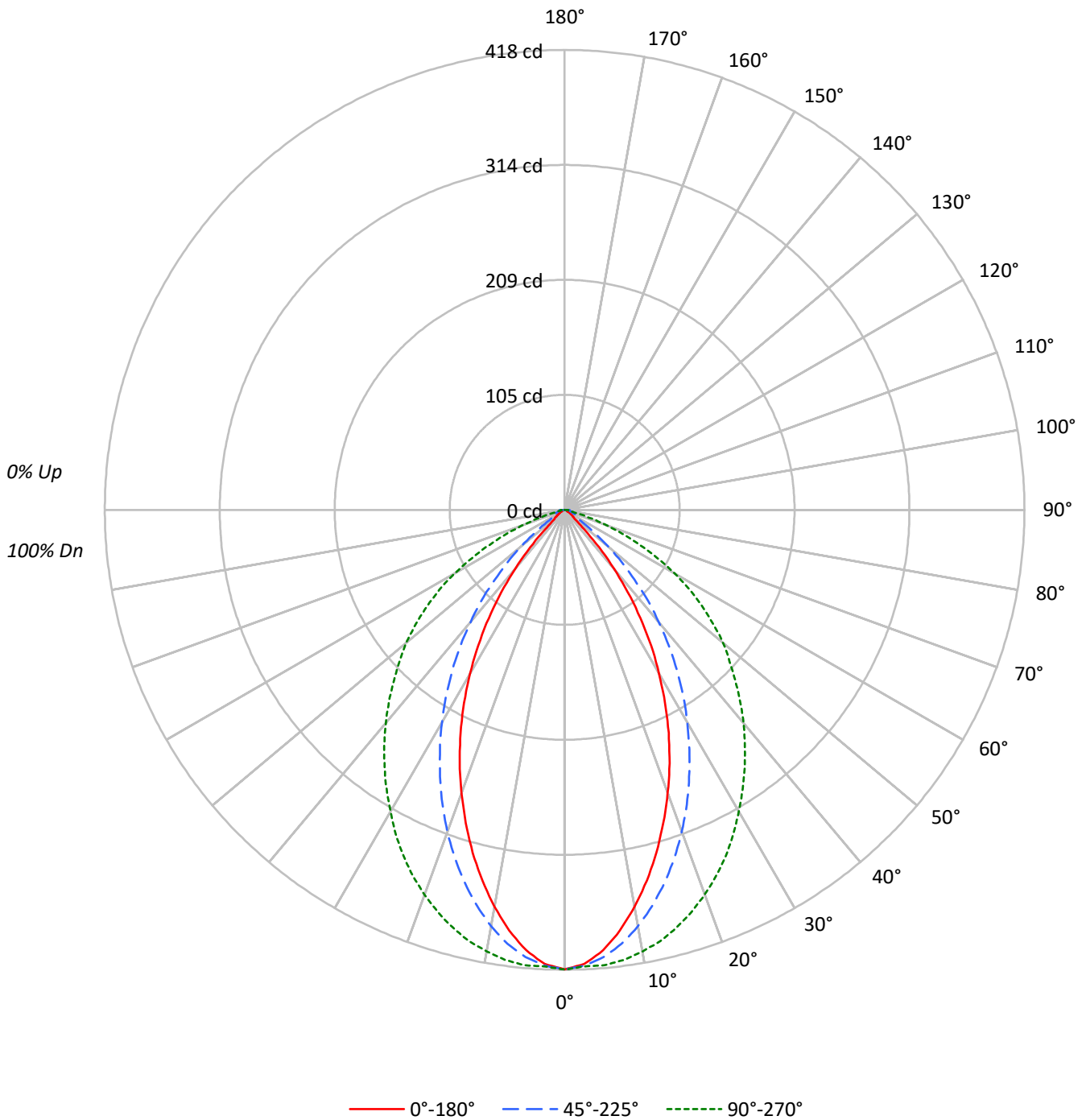
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 540.4 lumens  
Efficiency: N/A  
Efficacy: 46.2 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38

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

	0°	45°	90°
0°	2876	2876	2876
5°	2778	2820	2871
10°	2560	2687	2849
15°	2300	2501	2802
20°	2006	2282	2727
25°	1699	2034	2634
30°	1365	1771	2516
35°	1010	1494	2399
40°	626	1193	2273
45°	244	872	2137
50°	115	547	2014
55°	84	234	1827
60°	58	167	1585
65°	37	174	1233
70°	38	159	775
75°	51	160	247
80°	75	182	167
85°	111	363	253

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2137 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.3	7.1
10°-20°	99.2	18.4
20°-30°	126.4	23.4
30°-40°	117.7	21.8
40°-50°	81.0	15.0
50°-60°	45.8	8.5
60°-70°	21.7	4.0
70°-80°	6.8	1.3
80°-90°	3.5	0.7
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°	264.0	48.8
0°-40°	381.6	70.6
0°-60°	508.5	94.1
0°-90°	540.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	540.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	402	408	408	412	415	37
15°	323	333	351	377	393	90
25°	224	238	268	313	347	102
35°	120	137	178	239	285	74
45°	25	40	90	162	220	24
55°	7	8	20	93	152	6
65°	2	3	11	33	76	3
75°	2	4	6	6	9	2
85°	1	4	5	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	417.7	417.7	417.7	417.7	417.7
2.5°	413.1	417.2	414.5	414.9	415.4
5°	401.9	407.5	408.0	411.7	415.4
7.5°	385.7	392.6	397.7	406.6	412.6
10°	366.2	374.5	384.3	398.7	407.5
12.5°	345.3	355.1	368.5	388.9	401.5
15°	322.6	333.2	350.9	377.3	393.1
17.5°	298.4	310.5	331.8	363.4	383.4
20°	273.8	286.8	311.4	347.6	372.2
22.5°	249.2	262.7	290.1	330.5	360.2
25°	223.7	238.1	267.8	312.8	346.7
27.5°	197.7	212.6	245.5	294.7	332.3
30°	171.7	187.5	222.8	276.2	316.5
32.5°	146.2	162.0	200.5	257.6	301.2
35°	120.2	136.9	177.8	238.6	285.4
37.5°	94.2	112.3	155.5	219.1	269.2
40°	69.6	86.8	132.7	200.0	252.9
42.5°	46.4	63.1	112.3	181.0	236.2
45°	25.1	39.9	89.6	162.0	219.5
47.5°	13.5	21.3	70.1	143.4	203.3
50°	10.7	12.1	51.1	126.2	188.0
52.5°	8.8	9.7	33.4	110.0	170.3
55°	7.0	7.9	19.5	93.3	152.2
57.5°	5.6	6.5	12.5	77.5	134.6
60°	4.2	5.1	12.1	62.2	115.1
62.5°	3.2	3.7	11.1	47.8	94.7
65°	2.3	2.8	10.7	33.4	75.7
67.5°	1.9	2.3	9.7	21.3	56.6
70°	1.9	1.9	7.9	13.9	38.5
72.5°	1.9	3.2	7.0	9.3	23.2
75°	1.9	4.2	6.0	6.5	9.3
77.5°	1.9	4.6	5.1	5.1	5.1
80°	1.9	4.2	4.6	4.6	4.2
82.5°	1.9	3.7	4.2	4.6	3.7
85°	1.4	3.7	4.6	4.2	3.2
87.5°	1.4	3.7	4.2	3.7	2.3
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	0.00	0.00	0.00	0.00	0.00	12.92	14.21	13.28	14.52	14.83
	3H	0.00	0.00	0.00	0.00	0.00	13.63	14.78	14.01	15.11	15.47
	4H	0.00	0.00	0.00	0.00	0.00	13.66	14.72	14.06	15.07	15.45
	6H	0.00	0.00	0.00	0.00	0.00	13.61	14.58	14.02	14.95	15.35
	8H	0.00	0.00	0.00	0.00	0.00	13.58	14.51	14.02	14.90	15.30
	12H	0.00	0.00	0.00	0.00	0.24	13.57	14.45	14.00	14.83	15.26
4H	2H	0.00	0.00	0.00	0.00	0.00	12.71	13.77	13.11	14.12	14.50
	3H	0.00	0.00	0.00	0.00	0.00	13.46	14.33	13.87	14.73	15.14
	4H	0.00	0.04	0.00	0.46	0.91	13.49	14.27	13.93	14.69	15.13
	6H	0.55	1.22	1.02	1.67	2.13	13.47	14.14	13.93	14.58	15.05
	8H	1.14	1.76	1.61	2.21	2.68	13.45	14.08	13.92	14.52	14.99
	12H	1.70	2.25	2.19	2.74	3.21	13.46	14.01	13.95	14.49	14.97
8H	4H	0.67	1.29	1.14	1.74	2.21	13.37	14.00	13.84	14.44	14.92
	6H	2.23	2.74	2.74	3.24	3.72	13.36	13.87	13.87	14.37	14.85
	8H	3.03	3.49	3.55	4.00	4.50	13.37	13.83	13.90	14.35	14.84
	12H	3.87	4.27	4.38	4.77	5.34	13.43	13.84	13.95	14.33	14.90
12H	4H	0.89	1.44	1.37	1.92	2.40	13.33	13.88	13.82	14.36	14.84
	6H	2.60	3.06	3.12	3.57	4.07	13.32	13.77	13.84	14.29	14.78
	8H	3.59	4.00	4.11	4.49	5.06	13.36	13.77	13.88	14.26	14.83