

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: P1062020

Luminaire Tested: S125RDR-H375D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

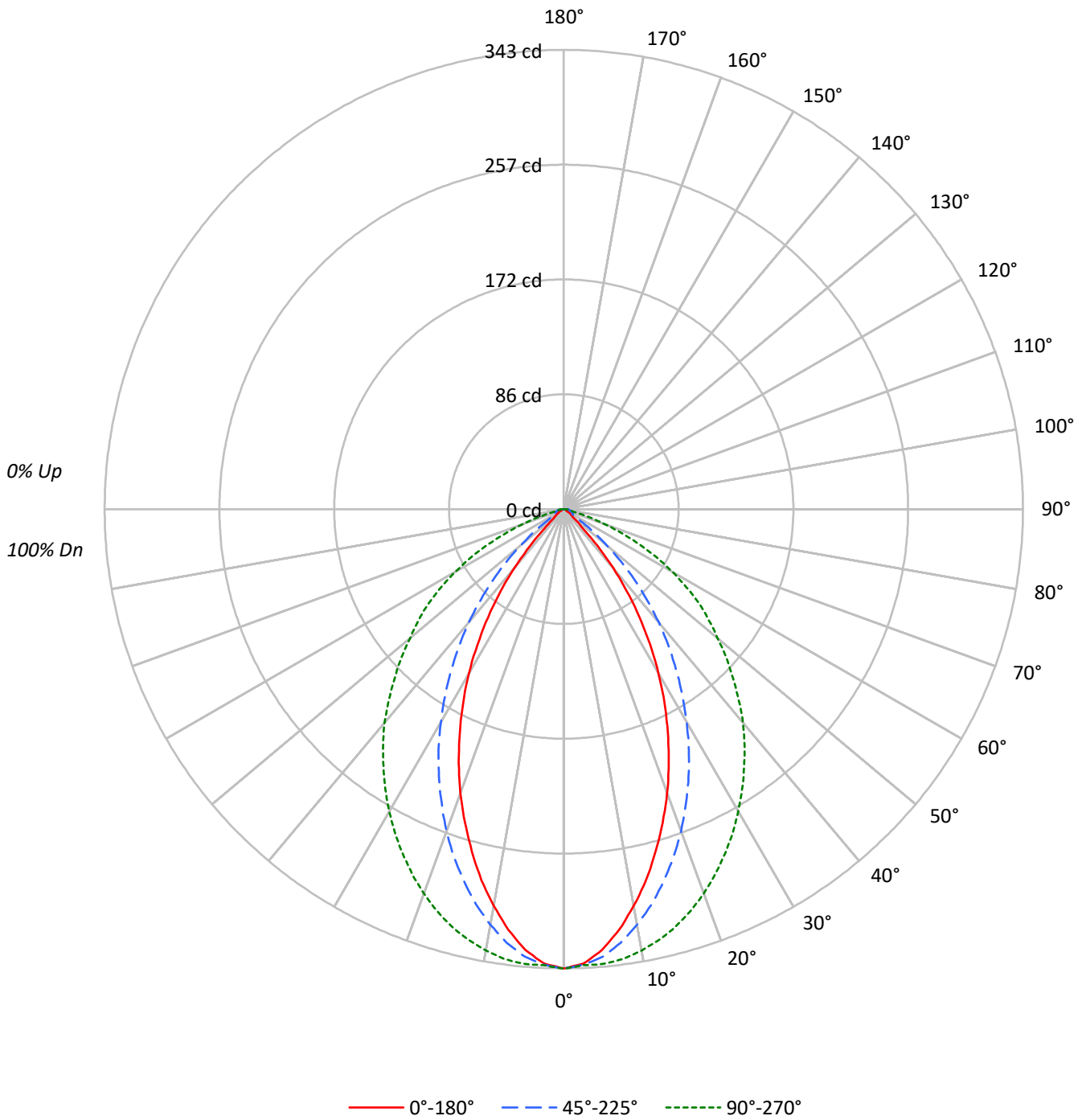
Test Method: LM-79-2019  
Report Number: P1062020  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H375D840-X4F0-XX-UDD-BVL-S  
Description: DEFINE 5 SILVER 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: 441.3 lumens  
Efficiency: N/A  
Efficacy: 37.7 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	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	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	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	68	74	70	67	65				
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59				
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54				
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49				
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45				
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39				

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

	0°	45°	90°
0°	2362	2362	2362
5°	2284	2319	2357
10°	2104	2204	2340
15°	1888	2051	2301
20°	1654	1876	2238
25°	1396	1676	2161
30°	1126	1458	2073
35°	828	1229	1974
40°	517	991	1872
45°	194	724	1740
50°	91	453	1607
55°	66	187	1486
60°	47	99	1286
65°	28	117	1018
70°	26	137	646
75°	35	136	202
80°	52	167	151
85°	103	269	197

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1740 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.5	7.1
10°-20°	81.5	18.5
20°-30°	103.8	23.5
30°-40°	96.6	21.9
40°-50°	66.2	15.0
50°-60°	36.4	8.3
60°-70°	17.3	3.9
70°-80°	5.4	1.2
80°-90°	2.8	0.6
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°	216.7	49.1
0°-40°	313.3	71.0
0°-60°	415.9	94.2
0°-90°	441.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	441.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	343	343	343	343	343	
5°	330	335	336	338	341	31
15°	265	273	288	309	323	74
25°	184	195	221	256	284	84
35°	98	112	146	194	235	61
45°	20	33	74	132	179	19
55°	6	6	16	74	124	5
65°	2	2	7	27	62	2
75°	1	2	5	6	8	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	343.1	343.1	343.1	343.1	343.1
2.5°	339.7	343.1	340.6	340.6	341.0
5°	330.4	334.7	335.5	338.1	341.0
7.5°	316.9	322.4	326.6	333.8	338.9
10°	300.9	307.6	315.2	327.1	334.7
12.5°	284.0	291.1	302.6	319.0	329.6
15°	264.9	273.4	287.8	309.3	322.8
17.5°	245.5	254.8	272.6	297.9	314.8
20°	225.7	235.4	256.1	284.4	305.5
22.5°	204.9	215.5	238.3	270.4	295.4
25°	183.8	195.2	220.6	256.1	284.4
27.5°	162.7	174.5	202.4	241.3	273.0
30°	141.6	153.8	183.4	226.1	260.7
32.5°	120.0	133.5	164.8	210.9	248.0
35°	98.5	112.4	146.2	194.4	234.9
37.5°	77.3	91.7	128.0	178.7	221.8
40°	57.5	71.8	110.3	163.1	208.3
42.5°	37.2	52.4	91.7	147.1	193.5
45°	19.9	33.4	74.4	131.8	178.7
47.5°	10.6	17.7	57.9	116.6	164.8
50°	8.5	9.7	42.3	101.4	150.0
52.5°	6.8	7.6	27.0	85.8	136.9
55°	5.5	6.3	15.6	73.5	123.8
57.5°	4.2	5.1	8.9	61.3	108.6
60°	3.4	3.8	7.2	49.0	93.4
62.5°	2.1	3.0	7.2	38.0	78.2
65°	1.7	2.1	7.2	27.0	62.5
67.5°	1.7	1.7	7.2	17.7	46.9
70°	1.3	1.3	6.8	11.4	32.1
72.5°	1.3	1.3	5.9	7.6	18.6
75°	1.3	2.1	5.1	5.5	7.6
77.5°	1.3	3.4	4.6	4.6	4.2
80°	1.3	3.4	4.2	3.8	3.8
82.5°	1.3	3.4	3.4	3.4	3.0
85°	1.3	3.0	3.4	3.0	2.5
87.5°	1.3	3.0	3.0	3.0	1.7
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	0.00	0.00	0.00	0.00	0.00	12.03	13.32	12.40	13.63	13.95
	3H	0.00	0.00	0.00	0.00	0.00	12.82	13.96	13.20	14.29	14.65
	4H	0.00	0.00	0.00	0.00	0.00	12.85	13.90	13.25	14.25	14.64
	6H	0.00	0.00	0.00	0.00	0.00	12.80	13.77	13.22	14.14	14.54
	8H	0.00	0.00	0.00	0.00	0.00	12.78	13.70	13.21	14.09	14.49
	12H	0.00	0.00	0.00	0.00	0.00	12.76	13.64	13.19	14.02	14.45
4H	2H	0.00	0.00	0.00	0.00	0.00	11.82	12.87	12.22	13.23	13.61
	3H	0.00	0.00	0.00	0.00	0.00	12.64	13.51	13.06	13.91	14.31
	4H	0.00	0.00	0.00	0.00	0.00	12.68	13.45	13.11	13.87	14.31
	6H	0.00	0.00	0.00	0.00	0.40	12.66	13.33	13.13	13.78	14.24
	8H	0.00	0.20	0.05	0.64	1.11	12.65	13.27	13.12	13.72	14.19
	12H	0.33	0.88	0.82	1.36	1.84	12.65	13.20	13.14	13.68	14.16
8H	4H	0.00	0.00	0.00	0.40	0.87	12.56	13.18	13.03	13.63	14.10
	6H	1.09	1.60	1.59	2.09	2.57	12.56	13.07	13.07	13.57	14.05
	8H	2.05	2.51	2.58	3.02	3.52	12.57	13.03	13.09	13.54	14.03
	12H	3.01	3.41	3.52	3.90	4.47	12.62	13.02	13.13	13.51	14.09
12H	4H	0.00	0.18	0.12	0.66	1.14	12.52	13.07	13.01	13.55	14.03
	6H	1.54	2.00	2.07	2.52	3.01	12.52	12.97	13.04	13.49	13.98
	8H	2.69	3.09	3.20	3.59	4.16	12.56	12.96	13.08	13.46	14.03