

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: P1059743

Luminaire Tested: S123RDR-H775D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059743
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D835-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

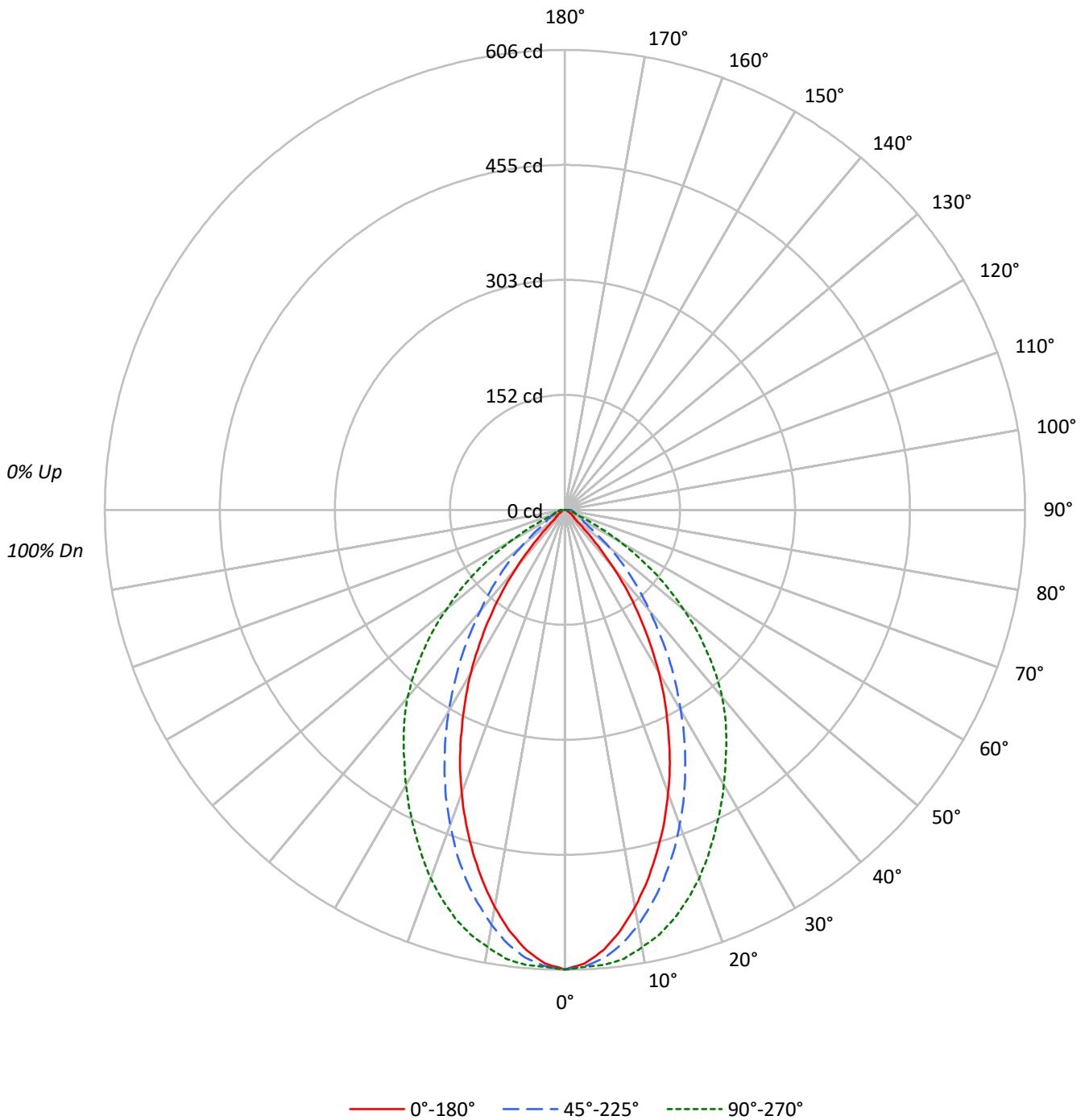
Lumens per Lamp: N/A
Luminaire Lumens: 727.5 lumens
Efficiency: N/A
Efficacy: 31.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7111	7111	7111
5°	6866	6986	7095
10°	6337	6625	6979
15°	5684	6125	6777
20°	4965	5520	6457
25°	4176	4859	6058
30°	3353	4144	5676
35°	2456	3412	5310
40°	1519	2655	4940
45°	585	1999	4397
50°	287	1370	3721
55°	227	757	2919
60°	153	632	1956
65°	128	567	875
70°	127	508	508
75°	168	544	504
80°	250	690	561
85°	377	1118	754

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4397 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.5	7.6
10°-20°	142.2	19.5
20°-30°	176.4	24.3
30°-40°	158.1	21.7
40°-50°	103.9	14.3
50°-60°	52.1	7.2
60°-70°	20.6	2.8
70°-80°	11.5	1.6
80°-90°	7.2	1.0
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°	374.1	51.4
0°-40°	532.2	73.2
0°-60°	688.2	94.6
0°-90°	727.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	727.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	582	592	593	596	602	54
15°	468	482	504	538	558	130
25°	322	343	375	428	468	147
35°	171	194	238	311	370	106
45°	35	58	120	203	265	33
55°	11	13	37	100	143	10
65°	5	13	20	26	32	5
75°	4	12	12	11	11	4
85°	3	8	8	8	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	605.6	605.6	605.6	605.6	605.6
2.5°	598.2	606.6	601.9	601.9	602.8
5°	582.5	591.7	592.7	596.4	601.9
7.5°	559.3	571.4	576.9	588.0	596.4
10°	531.5	544.5	555.6	575.1	585.3
12.5°	501.0	514.0	530.6	557.5	573.2
15°	467.6	482.5	503.8	538.0	557.5
17.5°	433.4	448.2	474.1	513.0	538.0
20°	397.3	413.9	441.7	486.2	516.7
22.5°	361.2	379.7	409.3	457.5	492.7
25°	322.3	342.6	375.0	427.8	467.6
27.5°	285.2	306.5	340.8	398.2	443.6
30°	247.3	268.6	305.6	367.6	418.6
32.5°	208.4	232.4	271.3	338.9	393.6
35°	171.3	194.5	238.0	311.1	370.4
37.5°	135.2	158.4	203.7	284.3	347.3
40°	99.1	123.2	173.2	258.4	322.3
42.5°	64.8	89.8	146.3	232.4	294.5
45°	35.2	58.3	120.4	202.8	264.8
47.5°	19.4	31.5	97.2	175.0	236.1
50°	15.7	17.6	75.0	149.1	203.7
52.5°	13.0	14.8	53.7	124.1	174.1
55°	11.1	13.0	37.0	100.0	142.6
57.5°	9.3	11.1	29.6	76.9	112.1
60°	6.5	11.1	26.9	56.5	83.3
62.5°	5.6	11.1	23.2	38.9	55.6
65°	4.6	13.0	20.4	25.9	31.5
67.5°	3.7	13.0	17.6	16.7	16.7
70°	3.7	13.0	14.8	13.9	14.8
72.5°	3.7	13.9	13.9	13.0	13.0
75°	3.7	12.0	12.0	11.1	11.1
77.5°	3.7	11.1	11.1	10.2	10.2
80°	3.7	10.2	10.2	9.3	8.3
82.5°	3.7	9.3	9.3	8.3	7.4
85°	2.8	8.3	8.3	8.3	5.6
87.5°	2.8	7.4	8.3	7.4	4.6
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	0.53	0.00	0.84	1.16	13.37	14.62	13.73	14.93	15.25
	3H	1.80	2.92	2.18	3.25	3.61	13.44	14.56	13.82	14.89	15.25
	4H	2.97	4.00	3.37	4.35	4.74	13.51	14.54	13.91	14.89	15.28
	6H	4.01	4.97	4.43	5.34	5.73	13.61	14.56	14.02	14.93	15.32
	8H	4.55	5.45	4.99	5.85	6.25	13.67	14.56	14.10	14.96	15.36
	12H	5.04	5.90	5.47	6.28	6.71	13.74	14.60	14.17	14.98	15.41
4H	2H	2.54	3.58	2.94	3.93	4.31	13.23	14.26	13.63	14.61	15.00
	3H	5.00	5.85	5.42	6.26	6.66	13.40	14.25	13.81	14.65	15.05
	4H	6.34	7.10	6.78	7.52	7.96	13.53	14.28	13.96	14.70	15.15
	6H	7.47	8.13	7.94	8.57	9.04	13.74	14.40	14.21	14.84	15.31
	8H	7.98	8.60	8.46	9.04	9.52	13.87	14.48	14.34	14.93	15.40
	12H	8.44	8.98	8.93	9.47	9.94	14.03	14.57	14.51	15.05	15.53
8H	4H	7.26	7.87	7.73	8.31	8.79	13.53	14.14	14.00	14.59	15.06
	6H	8.86	9.36	9.36	9.86	10.34	13.86	14.36	14.36	14.86	15.34
	8H	9.69	10.14	10.21	10.66	11.15	14.09	14.54	14.61	15.05	15.55
	12H	10.47	10.87	10.98	11.36	11.93	14.41	14.81	14.93	15.31	15.88
12H	4H	7.43	7.96	7.91	8.45	8.92	13.52	14.06	14.01	14.54	15.02
	6H	9.18	9.63	9.70	10.14	10.64	13.89	14.34	14.42	14.86	15.35
	8H	10.19	10.59	10.70	11.08	11.66	14.20	14.60	14.72	15.09	15.67