

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: P1059794

Luminaire Tested: S123RDR-H775D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D935-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

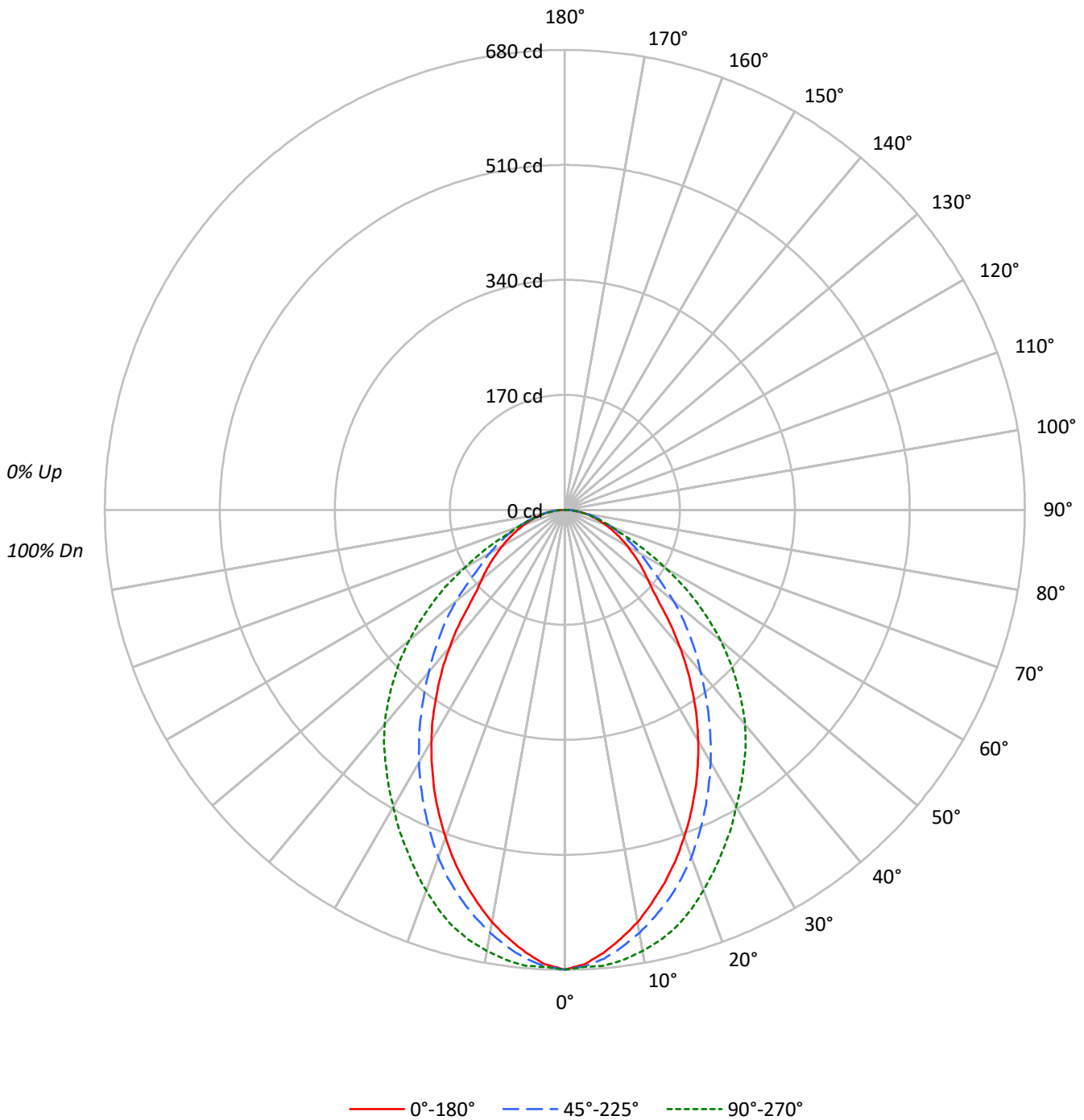
Lumens per Lamp: N/A
Luminaire Lumens: 1227.7 lumens
Efficiency: N/A
Efficacy: 52.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7981	7981	7981
5°	7748	7852	7974
10°	7382	7571	7895
15°	6935	7236	7758
20°	6442	6830	7488
25°	5916	6349	7175
30°	5348	5845	6872
35°	4718	5311	6613
40°	4054	4787	6351
45°	3335	4314	5955
50°	2927	3842	5488
55°	2708	3280	4860
60°	2489	3013	4023
65°	2326	2767	3165
70°	2187	2517	2517
75°	2060	2314	2169
80°	1941	2103	1833
85°	1819	2034	1401

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5955 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	5.1
10°-20°	168.5	13.7
20°-30°	228.4	18.6
30°-40°	238.8	19.5
40°-50°	207.1	16.9
50°-60°	154.1	12.6
60°-70°	98.9	8.1
70°-80°	53.0	4.3
80°-90°	16.0	1.3
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°	459.8	37.4
0°-40°	698.6	56.9
0°-60°	1059.8	86.3
0°-90°	1227.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1227.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	657	668	666	671	676	62
15°	570	584	595	619	638	160
25°	457	471	490	523	554	209
35°	329	345	370	418	461	205
45°	201	216	260	316	359	158
55°	132	136	160	206	237	118
65°	84	91	100	106	114	83
75°	45	53	51	49	48	48
85°	14	17	15	13	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.7	679.7	679.7	679.7	679.7
2.5°	672.5	682.0	675.7	675.7	676.5
5°	657.3	668.5	666.1	670.9	676.5
7.5°	639.0	651.0	651.8	662.9	670.9
10°	619.1	631.0	635.0	651.0	662.1
12.5°	595.2	608.7	615.9	635.8	651.8
15°	570.5	584.0	595.2	619.1	638.2
17.5°	544.2	557.7	572.1	599.2	619.9
20°	515.5	529.9	546.6	573.7	599.2
22.5°	486.0	501.2	518.7	548.2	576.9
25°	456.6	470.9	490.0	522.7	553.8
27.5°	425.5	440.6	460.5	496.4	531.5
30°	394.4	409.5	431.1	469.3	506.8
32.5°	362.5	377.7	400.8	443.8	484.4
35°	329.1	345.0	370.5	417.5	461.3
37.5°	297.2	312.3	341.0	392.8	439.0
40°	264.5	280.5	312.3	368.1	414.3
42.5°	232.7	248.6	286.0	341.8	387.2
45°	200.8	215.9	259.8	315.5	358.6
47.5°	176.1	187.2	235.1	287.6	330.7
50°	160.2	164.1	210.3	260.5	300.4
52.5°	145.8	149.0	183.3	233.5	269.3
55°	132.3	135.5	160.2	205.6	237.4
57.5°	118.7	122.7	142.6	176.9	205.6
60°	106.0	110.8	128.3	151.4	171.3
62.5°	94.8	100.4	113.9	128.3	141.8
65°	83.7	90.8	99.6	106.0	113.9
67.5°	73.3	81.3	86.1	87.6	88.4
70°	63.7	71.7	73.3	73.3	73.3
72.5°	54.2	62.9	61.4	60.6	59.8
75°	45.4	52.6	51.0	48.6	47.8
77.5°	36.7	43.0	40.6	39.0	36.7
80°	28.7	33.5	31.1	29.5	27.1
82.5°	21.5	24.7	22.3	20.7	18.3
85°	13.5	16.7	15.1	12.7	10.4
87.5°	7.2	9.6	8.0	7.2	4.0
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	14.00	15.48	14.37	15.80	16.11	16.76	18.24	17.12	18.56	18.87
	3H	15.71	17.04	16.09	17.37	17.73	17.78	19.11	18.16	19.44	19.80
	4H	16.37	17.62	16.77	17.97	18.35	18.14	19.39	18.54	19.74	20.12
	6H	16.87	18.02	17.29	18.39	18.78	18.40	19.55	18.81	19.92	20.31
	8H	17.05	18.15	17.48	18.54	18.94	18.47	19.56	18.90	19.95	20.36
	12H	17.18	18.23	17.61	18.61	19.04	18.51	19.55	18.94	19.94	20.36
4H	2H	14.78	16.02	15.18	16.37	16.75	17.03	18.28	17.43	18.62	19.00
	3H	16.70	17.74	17.11	18.14	18.54	18.28	19.32	18.69	19.72	20.12
	4H	17.51	18.44	17.95	18.86	19.30	18.77	19.70	19.20	20.12	20.56
	6H	18.15	18.96	18.61	19.41	19.87	19.15	19.96	19.61	20.40	20.86
	8H	18.38	19.14	18.85	19.58	20.05	19.26	20.02	19.73	20.46	20.93
	12H	18.56	19.23	19.04	19.71	20.18	19.33	20.01	19.82	20.49	20.96
8H	4H	17.83	18.59	18.30	19.03	19.50	18.96	19.72	19.43	20.16	20.63
	6H	18.63	19.25	19.12	19.74	20.22	19.45	20.07	19.95	20.57	21.04
	8H	18.95	19.51	19.47	20.02	20.51	19.63	20.19	20.14	20.70	21.19
	12H	19.23	19.73	19.74	20.22	20.78	19.76	20.25	20.27	20.75	21.31
12H	4H	17.86	18.53	18.34	19.01	19.48	18.98	19.65	19.46	20.13	20.60
	6H	18.68	19.24	19.20	19.75	20.24	19.49	20.05	20.00	20.56	21.05
	8H	19.07	19.57	19.58	20.06	20.63	19.72	20.21	20.23	20.70	21.27