

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: P1059795

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059795
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
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-W
Description: DEFINE 3 WHITE 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

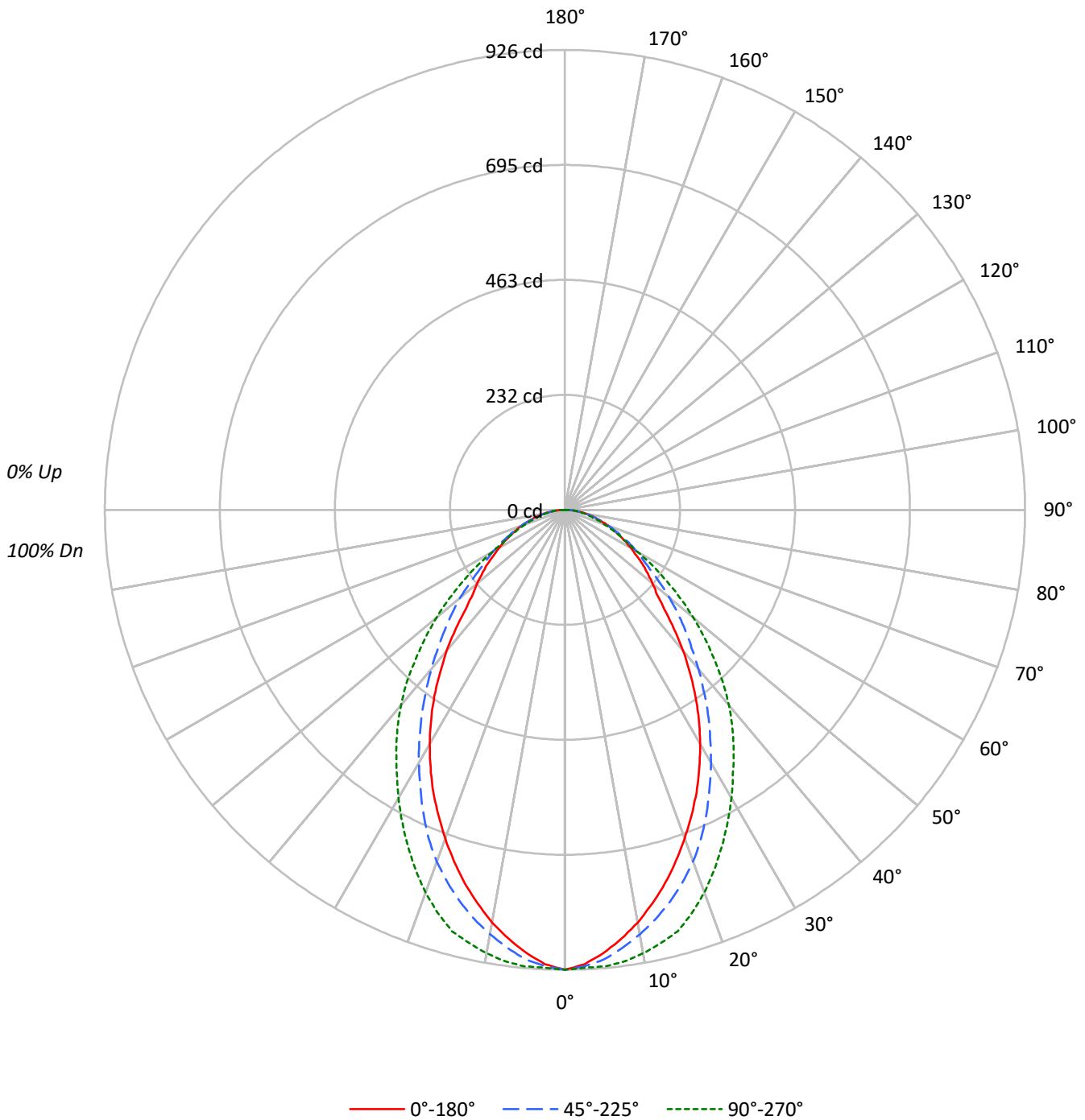
Lumens per Lamp: N/A
Luminaire Lumens: 1627.0 lumens
Efficiency: N/A
Efficacy: 69.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10872	10872	10872
5°	10557	10708	10876
10°	10062	10347	10812
15°	9464	9930	10675
20°	8802	9420	10246
25°	8125	8734	9684
30°	7379	7974	9086
35°	6568	7196	8488
40°	5667	6412	7867
45°	4685	5676	7053
50°	4207	5007	6158
55°	3898	4275	5106
60°	3593	3891	3910
65°	3343	3520	3276
70°	3145	3200	2874
75°	2963	2858	2532
80°	2800	2583	2374
85°	2681	2897	2681

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7053 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.8	5.3
10°-20°	231.0	14.2
20°-30°	312.6	19.2
30°-40°	321.2	19.7
40°-50°	269.7	16.6
50°-60°	193.4	11.9
60°-70°	123.1	7.6
70°-80°	67.7	4.2
80°-90°	22.5	1.4
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°	629.4	38.7
0°-40°	950.5	58.4
0°-60°	1413.7	86.9
0°-90°	1627.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1627.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	896	912	908	915	923	84
15°	778	800	817	852	878	218
25°	627	651	674	711	747	287
35°	458	483	502	547	592	285
45°	282	307	342	391	425	223
55°	190	194	209	237	249	170
65°	120	128	127	120	118	120
75°	65	72	63	58	56	69
85°	20	21	22	22	20	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	925.9	925.9	925.9	925.9	925.9
2.5°	915.6	928.3	919.6	920.4	922.7
5°	895.6	911.6	908.4	914.8	922.7
7.5°	870.9	888.5	889.3	904.4	917.2
10°	843.9	862.2	867.8	890.9	906.8
12.5°	812.0	831.9	843.9	872.5	893.3
15°	778.5	800.0	816.8	851.8	878.1
17.5°	741.9	765.0	786.5	823.9	851.0
20°	704.4	729.1	753.8	788.9	819.9
22.5°	665.4	690.9	716.4	750.6	784.9
25°	627.1	651.0	674.1	710.8	747.4
27.5°	585.7	610.4	630.3	670.9	709.2
30°	544.2	568.9	588.1	630.3	670.1
32.5°	501.2	526.7	544.2	588.1	629.5
35°	458.2	482.9	502.0	546.6	592.1
37.5°	412.8	439.9	459.0	509.2	553.8
40°	369.7	395.2	418.3	470.9	513.2
42.5°	325.1	351.4	377.7	431.9	470.9
45°	282.1	306.8	341.8	391.2	424.7
47.5°	251.0	266.9	307.6	349.0	380.9
50°	230.3	236.7	274.1	310.8	337.1
52.5°	209.6	214.4	239.8	273.3	293.2
55°	190.4	194.4	208.8	236.7	249.4
57.5°	169.7	173.7	185.7	201.6	208.8
60°	153.0	156.2	165.7	168.1	166.5
62.5°	136.3	141.0	145.8	140.2	137.9
65°	120.3	127.5	126.7	119.5	117.9
67.5°	106.0	113.2	109.2	102.0	99.6
70°	91.6	98.8	93.2	86.1	83.7
72.5°	78.1	86.1	77.3	70.9	69.3
75°	65.3	71.7	63.0	58.2	55.8
77.5°	53.4	58.2	50.2	46.2	44.6
80°	41.4	44.6	38.2	35.9	35.1
82.5°	30.3	31.9	27.9	29.5	28.7
85°	19.9	20.7	21.5	22.3	19.9
87.5°	9.6	13.5	13.5	12.7	10.4
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	15.47	16.94	15.84	17.25	17.57	16.55	18.01	16.91	18.32	18.64
	3H	17.17	18.48	17.55	18.81	19.17	17.63	18.94	18.01	19.27	19.63
	4H	17.83	19.05	18.23	19.40	19.78	18.03	19.26	18.43	19.61	19.99
	6H	18.33	19.46	18.74	19.83	20.22	18.34	19.48	18.75	19.84	20.24
	8H	18.50	19.58	18.93	19.97	20.37	18.48	19.55	18.90	19.94	20.35
	12H	18.63	19.66	19.06	20.04	20.47	18.60	19.63	19.03	20.01	20.44
4H	2H	16.08	17.30	16.48	17.65	18.03	16.95	18.18	17.35	18.53	18.91
	3H	18.00	19.02	18.42	19.42	19.83	18.27	19.28	18.68	19.69	20.09
	4H	18.82	19.73	19.25	20.15	20.59	18.79	19.70	19.22	20.12	20.56
	6H	19.46	20.26	19.92	20.70	21.17	19.22	20.02	19.68	20.46	20.92
	8H	19.69	20.43	20.15	20.88	21.34	19.41	20.15	19.87	20.60	21.07
	12H	19.86	20.52	20.34	21.00	21.47	19.59	20.26	20.08	20.74	21.21
8H	4H	19.05	19.80	19.52	20.24	20.71	19.03	19.78	19.50	20.22	20.69
	6H	19.84	20.46	20.34	20.95	21.43	19.58	20.20	20.08	20.69	21.17
	8H	20.15	20.71	20.67	21.22	21.71	19.86	20.41	20.37	20.92	21.41
	12H	20.42	20.91	20.93	21.40	21.97	20.15	20.64	20.66	21.13	21.70
12H	4H	19.07	19.73	19.55	20.21	20.68	19.06	19.72	19.54	20.20	20.67
	6H	19.88	20.43	20.39	20.94	21.43	19.63	20.19	20.15	20.70	21.19
	8H	20.25	20.74	20.76	21.23	21.80	19.97	20.46	20.48	20.95	21.52