

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059109

Luminaire Tested: S123RDRP-S1165D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059109
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D840-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

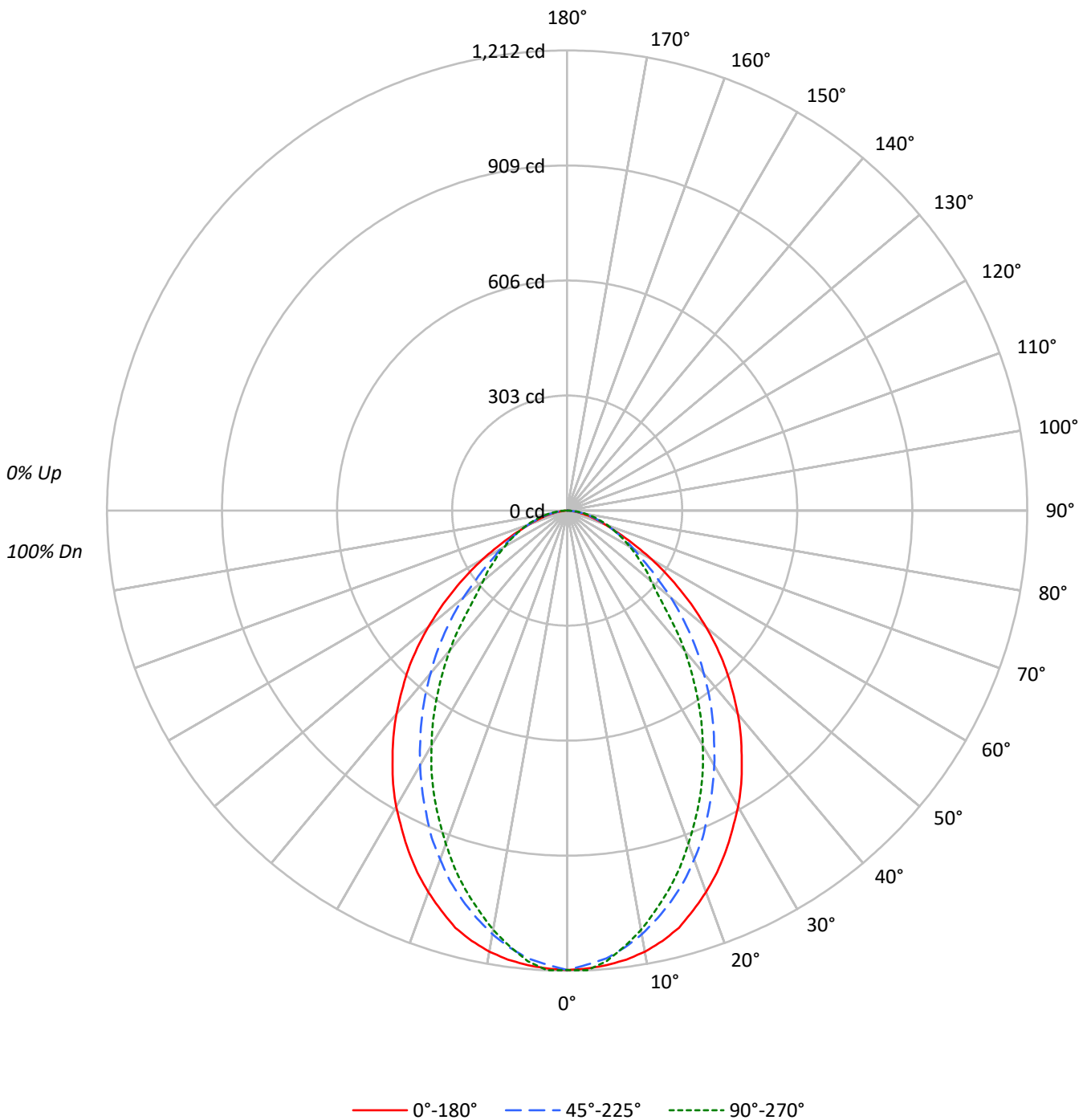
Lumens per Lamp: N/A
Luminaire Lumens: 2116.7 lumens
Efficiency: N/A
Efficacy: 50.6 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (A_{in}): 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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89					88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78					76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68					66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60					58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54					52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48					47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44					42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40					38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37					35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34					32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14211	14211	14211
5°	14162	13956	14042
10°	14066	13511	13372
15°	13828	12926	12572
20°	13360	12215	11669
25°	12815	11383	10742
30°	12209	10512	9684
35°	11489	9571	8569
40°	10725	8584	7381
45°	9831	7584	6063
50°	8716	6511	5261
55°	7415	5450	4823
60°	6047	4749	4476
65°	4607	4204	4162
70°	3595	3746	3897
75°	2904	3366	3630
80°	2164	2752	3347
85°	1172	1765	2937

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9831 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.3	5.3
10°-20°	302.2	14.3
20°-30°	410.9	19.4
30°-40°	425.9	20.1
40°-50°	359.2	17.0
50°-60°	255.0	12.0
60°-70°	155.9	7.4
70°-80°	77.5	3.7
80°-90°	17.6	0.8
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°	825.5	39.0
0°-40°	1251.4	59.1
0°-60°	1865.7	88.1
0°-90°	2116.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2116.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1210	1210	1210	1210	1210	
5°	1202	1202	1184	1191	1191	114
15°	1138	1116	1063	1044	1034	319
25°	989	946	879	847	829	455
35°	802	740	668	621	598	501
45°	592	530	457	394	365	455
55°	362	324	266	243	236	325
65°	166	160	151	151	150	169
75°	64	68	74	77	80	69
85°	9	10	13	19	22	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1210.2	1210.2	1210.2	1210.2	1210.2
2.5°	1207.3	1208.8	1197.1	1210.2	1211.7
5°	1201.5	1201.5	1184.0	1191.3	1191.3
7.5°	1192.8	1189.9	1160.8	1160.8	1157.9
10°	1179.7	1170.9	1133.1	1125.9	1121.5
12.5°	1160.8	1146.2	1099.7	1086.6	1077.9
15°	1137.5	1115.7	1063.3	1044.4	1034.2
17.5°	1104.0	1082.2	1024.0	997.8	986.2
20°	1069.1	1037.1	977.5	951.3	933.8
22.5°	1031.3	990.6	932.4	900.4	881.5
25°	989.1	945.5	878.6	846.6	829.1
27.5°	944.0	896.0	827.7	791.3	773.8
30°	900.4	845.1	775.3	734.6	714.2
32.5°	853.8	791.3	720.0	677.8	657.5
35°	801.5	740.4	667.7	621.1	597.8
37.5°	752.0	689.5	613.8	564.4	538.2
40°	699.7	637.1	560.0	509.1	481.5
42.5°	644.4	584.7	509.1	449.5	423.3
45°	592.0	529.5	456.7	394.2	365.1
47.5°	535.3	477.1	405.8	341.8	321.5
50°	477.1	423.3	356.4	298.2	288.0
52.5°	420.4	375.3	306.9	269.1	264.7
55°	362.2	324.4	266.2	242.9	235.6
57.5°	308.4	280.7	228.4	216.7	213.8
60°	257.5	234.2	202.2	194.9	190.6
62.5°	208.0	194.9	176.0	173.1	170.2
65°	165.8	160.0	151.3	151.3	149.8
67.5°	130.9	130.9	129.5	132.4	130.9
70°	104.7	106.2	109.1	112.0	113.5
72.5°	82.9	87.3	90.2	94.5	96.0
75°	64.0	68.4	74.2	77.1	80.0
77.5°	46.5	50.9	56.7	61.1	64.0
80°	32.0	34.9	40.7	46.5	49.5
82.5°	20.4	21.8	26.2	32.0	34.9
85°	8.7	10.2	13.1	18.9	21.8
87.5°	0.0	0.0	1.5	5.8	10.2
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	18.03	19.48	18.39	19.79	20.11	16.13	17.58	16.49	17.89	18.20
	3H	18.93	20.22	19.30	20.55	20.91	17.70	19.00	18.08	19.32	19.69
	4H	19.21	20.42	19.61	20.77	21.15	18.30	19.51	18.70	19.86	20.24
	6H	19.36	20.48	19.77	20.84	21.24	18.75	19.86	19.16	20.23	20.62
	8H	19.38	20.44	19.81	20.83	21.24	18.90	19.96	19.32	20.35	20.75
	12H	19.38	20.39	19.81	20.77	21.20	18.99	20.01	19.42	20.39	20.82
4H	2H	18.27	19.49	18.67	19.84	20.22	16.67	17.88	17.07	18.23	18.61
	3H	19.39	20.39	19.80	20.79	21.19	18.44	19.44	18.85	19.84	20.25
	4H	19.78	20.68	20.21	21.09	21.53	19.15	20.05	19.59	20.47	20.91
	6H	20.02	20.80	20.48	21.24	21.70	19.73	20.50	20.18	20.95	21.41
	8H	20.06	20.79	20.53	21.23	21.70	19.92	20.64	20.38	21.09	21.56
	12H	20.07	20.72	20.55	21.20	21.67	20.06	20.70	20.54	21.18	21.65
8H	4H	19.94	20.66	20.40	21.11	21.58	19.36	20.09	19.83	20.54	21.00
	6H	20.25	20.85	20.75	21.34	21.82	20.04	20.64	20.54	21.13	21.61
	8H	20.32	20.86	20.84	21.37	21.86	20.30	20.83	20.81	21.34	21.83
	12H	20.36	20.83	20.87	21.33	21.89	20.50	20.98	21.02	21.47	22.04
12H	4H	19.94	20.59	20.42	21.07	21.54	19.36	20.01	19.84	20.49	20.96
	6H	20.26	20.80	20.78	21.31	21.80	20.05	20.58	20.56	21.10	21.59
	8H	20.38	20.85	20.89	21.34	21.91	20.35	20.82	20.86	21.32	21.89