

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: P242865

Luminaire Tested: S125DRP-S610D940-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242865
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S610D940-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

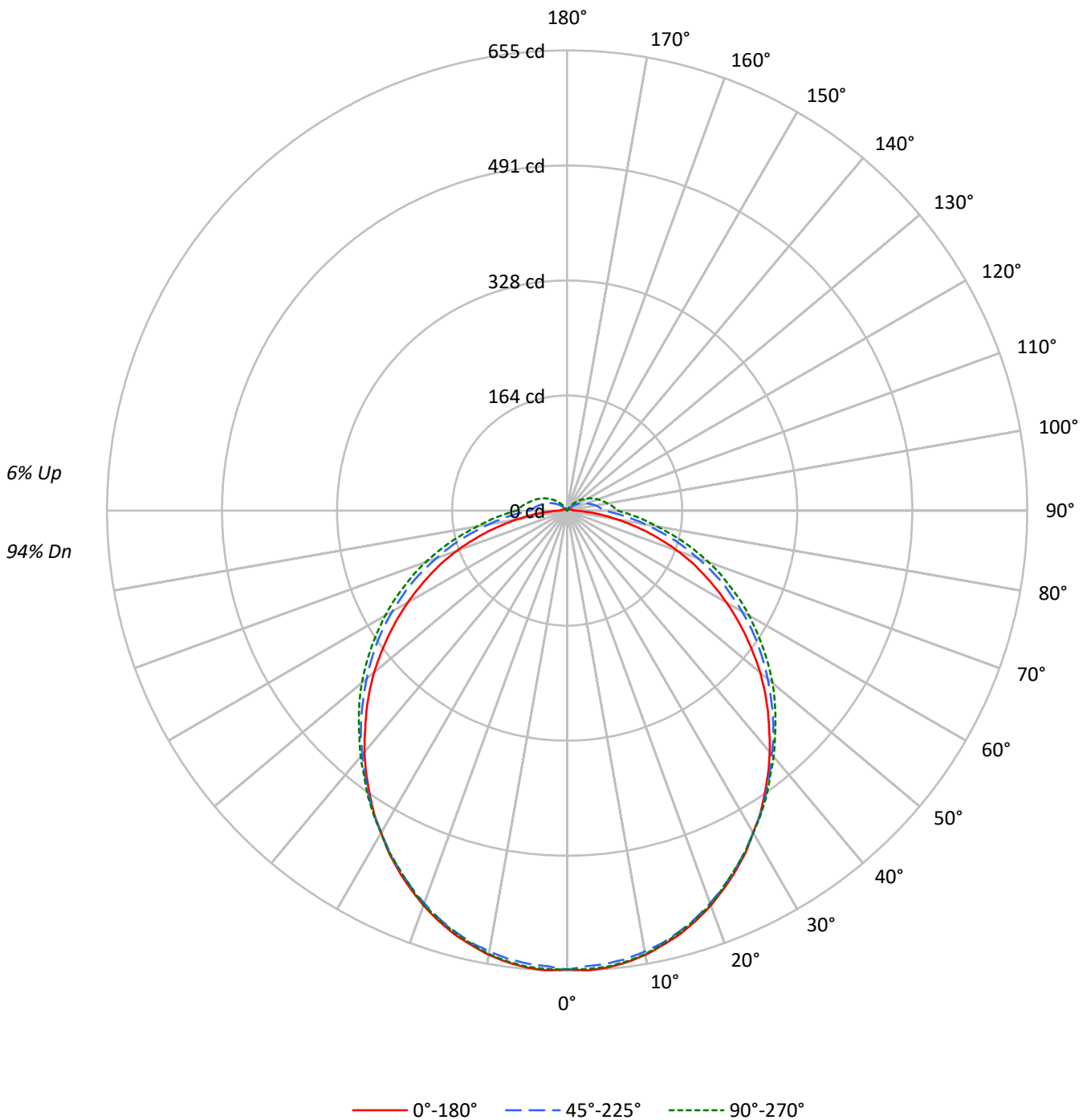
Lumens per Lamp: N/A
Luminaire Lumens: 2023.1 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 18.8
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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94				
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76				
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63				
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53				
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45				
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39				
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34				
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30				
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27				
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24				
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4642	4642	4642
5°	4651	4552	4565
10°	4617	4467	4458
15°	4562	4366	4323
20°	4488	4242	4188
25°	4399	4110	4024
30°	4292	3966	3874
35°	4192	3832	3736
40°	4090	3692	3598
45°	3975	3571	3475
50°	3866	3440	3364
55°	3733	3316	3235
60°	3589	3174	3104
65°	3439	3025	2956
70°	3267	2823	2803
75°	2995	2627	2615
80°	2641	2389	2409
85°	2304	2218	2325

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3975 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	3.1
10°-20°	175.4	8.7
20°-30°	260.9	12.9
30°-40°	309.0	15.3
40°-50°	319.4	15.8
50°-60°	294.2	14.5
60°-70°	237.9	11.8
70°-80°	159.2	7.9
80°-90°	82.3	4.1
90°-100°	46.3	2.3
100°-110°	34.2	1.7
110°-120°	22.9	1.1
120°-130°	12.9	0.6
130°-140°	5.7	0.3
140°-150°	1.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	498.1	24.6
0°-40°	807.1	39.9
0°-60°	1420.7	70.2
0°-90°	1900.0	93.9
90°-120°	103.4	5.1
90°-150°	123.1	6.1
90°-180°	123.0	6.1
0°-180°	2023.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	653	652	647	652	652	62
15°	624	624	620	624	621	176
25°	567	569	565	567	564	261
35°	490	495	493	495	495	307
45°	404	411	414	419	419	312
55°	310	321	331	338	341	278
65°	214	229	244	254	256	212
75°	118	134	155	168	171	125
85°	35	56	79	93	98	37
90°	10	31	52	67	72	7
95°	8	25	47	61	65	7
105°	6	16	35	48	52	6
115°	4	8	25	36	40	4
125°	3	2	15	25	28	2
135°	1	1	5	13	17	1
145°	1	0	0	3	6	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	653.1	653.1	653.1	653.1	653.1
2.5°	655.0	653.7	649.2	653.7	653.1
5°	653.1	651.8	647.3	652.4	651.8
7.5°	648.6	648.0	643.5	648.0	647.3
10°	642.2	642.2	637.1	641.6	640.9
12.5°	633.2	633.9	630.0	633.2	631.3
15°	623.6	624.3	619.8	623.6	621.1
17.5°	611.5	612.7	608.3	611.5	609.5
20°	598.0	599.3	594.8	596.7	596.7
22.5°	582.6	585.2	580.1	582.6	580.7
25°	566.6	568.6	564.7	567.3	564.1
27.5°	549.4	551.9	547.4	549.4	548.1
30°	529.5	533.3	529.5	530.8	530.1
32.5°	511.6	514.8	512.2	513.5	512.9
35°	490.4	494.9	493.0	494.9	494.9
37.5°	470.0	473.8	473.2	475.7	475.1
40°	448.8	454.0	453.3	455.9	457.2
42.5°	425.8	432.8	434.7	437.9	437.9
45°	404.0	411.1	414.3	418.7	419.4
47.5°	381.6	388.0	393.1	399.5	400.8
50°	358.6	365.6	372.6	379.7	381.6
52.5°	334.2	343.2	352.1	359.8	361.1
55°	310.5	320.8	331.0	338.1	340.6
57.5°	286.2	298.4	309.9	317.6	319.5
60°	261.9	274.7	287.5	297.1	299.0
62.5°	238.2	251.0	265.1	276.0	278.5
65°	213.9	228.6	243.9	253.5	256.1
67.5°	191.4	205.5	220.9	232.4	235.6
70°	166.5	181.2	197.8	210.0	213.9
72.5°	142.1	157.5	176.1	189.5	192.1
75°	117.8	134.5	154.9	167.8	171.0
77.5°	94.1	113.3	132.5	146.6	149.2
80°	72.4	91.6	113.3	127.4	130.0
82.5°	52.5	73.0	95.4	108.8	114.0
85°	35.2	56.3	78.8	92.8	98.0
87.5°	22.4	42.9	64.7	79.4	83.9
90°	10.2	30.7	52.5	67.2	71.7
92.5°	9.0	27.5	49.9	64.0	68.5
95°	8.3	25.0	46.7	60.8	65.3
97.5°	7.7	23.0	44.2	57.6	62.1
100°	7.0	20.5	41.0	54.4	58.3
102.5°	6.4	18.6	38.4	51.2	55.1
105°	5.8	16.0	35.2	48.0	52.5
107.5°	5.1	14.1	32.7	45.5	49.3
110°	4.5	12.2	30.1	42.3	46.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.5	10.2	27.5	39.1	43.5
115°	3.8	8.3	25.0	36.5	40.3
117.5°	3.2	6.4	22.4	33.3	37.8
120°	3.2	5.1	19.8	30.7	34.6
122.5°	2.6	3.2	17.3	27.5	31.4
125°	2.6	1.9	14.7	25.0	28.2
127.5°	1.9	1.3	12.2	21.8	25.6
130°	1.9	1.3	10.2	19.2	22.4
132.5°	1.3	1.3	7.7	16.6	19.2
135°	1.3	0.6	5.1	13.4	16.6
137.5°	1.3	0.6	3.2	10.9	13.4
140°	0.6	0.6	1.3	8.3	10.9
142.5°	0.6	0.0	0.0	5.8	8.3
145°	0.6	0.0	0.0	3.2	5.8
147.5°	0.0	0.0	0.0	1.3	2.6
150°	0.0	0.0	0.0	0.0	0.6
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	15.25	16.78	15.71	17.22	17.69	16.29	17.83	16.75	18.27	18.73
	3H	16.90	18.30	17.37	18.75	19.25	18.47	19.87	18.94	20.32	20.82
	4H	17.47	18.79	17.96	19.26	19.78	19.44	20.75	19.93	21.22	21.74
	6H	17.85	19.08	18.36	19.56	20.09	20.33	21.56	20.84	22.04	22.57
	8H	17.96	19.13	18.47	19.63	20.17	20.77	21.94	21.28	22.44	22.98
	12H	18.02	19.14	18.54	19.64	20.21	21.23	22.35	21.75	22.85	23.42
4H	2H	16.01	17.33	16.51	17.80	18.32	16.83	18.15	17.32	18.61	19.13
	3H	17.89	19.01	18.40	19.52	20.06	19.22	20.34	19.72	20.85	21.39
	4H	18.60	19.61	19.12	20.14	20.71	20.33	21.35	20.86	21.88	22.45
	6H	19.10	20.00	19.65	20.55	21.14	21.40	22.30	21.94	22.84	23.43
	8H	19.25	20.10	19.81	20.65	21.25	21.92	22.76	22.47	23.31	23.91
	12H	19.36	20.12	19.93	20.70	21.30	22.48	23.24	23.05	23.82	24.42
8H	4H	19.08	19.92	19.63	20.47	21.07	20.59	21.43	21.14	21.98	22.59
	6H	19.74	20.45	20.33	21.04	21.65	21.81	22.52	22.40	23.12	23.72
	8H	19.98	20.62	20.58	21.22	21.84	22.45	23.09	23.05	23.70	24.32
	12H	20.16	20.73	20.76	21.32	22.01	23.17	23.73	23.76	24.32	25.01
12H	4H	19.18	19.94	19.75	20.52	21.12	20.61	21.37	21.18	21.95	22.56
	6H	19.90	20.54	20.50	21.15	21.77	21.86	22.50	22.46	23.11	23.73
	8H	20.22	20.79	20.82	21.38	22.07	22.57	23.14	23.17	23.73	24.42