

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: P242850

Luminaire Tested: S125DRP-S610D840-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242850
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-S610D840-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

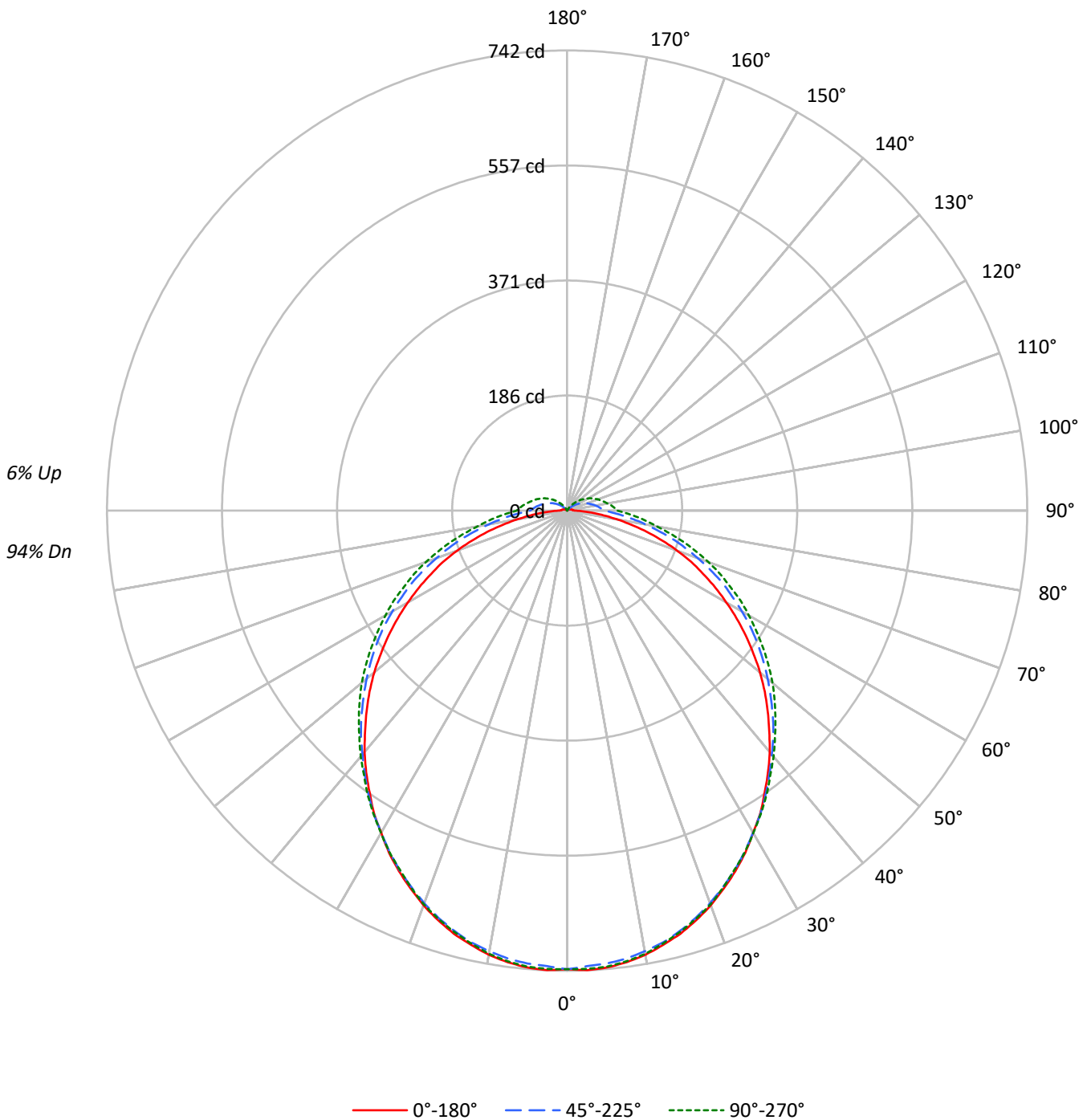
Lumens per Lamp: N/A
Luminaire Lumens: 2291.2 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (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	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°	5257	5257	5257
5°	5267	5155	5170
10°	5229	5059	5048
15°	5167	4945	4896
20°	5083	4805	4743
25°	4982	4655	4557
30°	4861	4491	4387
35°	4747	4340	4231
40°	4632	4181	4074
45°	4502	4044	3934
50°	4378	3896	3811
55°	4228	3755	3665
60°	4065	3595	3515
65°	3894	3427	3347
70°	3699	3198	3174
75°	3391	2976	2961
80°	2988	2705	2727
85°	2612	2511	2631

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4502 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	3.1
10°-20°	198.7	8.7
20°-30°	295.4	12.9
30°-40°	349.9	15.3
40°-50°	361.7	15.8
50°-60°	333.2	14.5
60°-70°	269.4	11.8
70°-80°	180.2	7.9
80°-90°	93.2	4.1
90°-100°	52.5	2.3
100°-110°	38.7	1.7
110°-120°	25.9	1.1
120°-130°	14.7	0.6
130°-140°	6.4	0.3
140°-150°	1.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	564.1	24.6
0°-40°	914.0	39.9
0°-60°	1609.0	70.2
0°-90°	2151.8	93.9
90°-120°	117.1	5.1
90°-150°	139.4	6.1
90°-180°	139.0	6.1
0°-180°	2291.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	740	738	733	739	738	70
15°	706	707	702	706	703	199
25°	642	644	640	642	639	295
35°	555	560	558	560	560	348
45°	458	466	469	474	475	353
55°	352	363	375	383	386	314
65°	242	259	276	287	290	240
75°	133	152	176	190	194	141
85°	40	64	89	105	111	42
90°	12	35	60	76	81	8
95°	9	28	53	69	74	7
105°	6	18	40	54	60	7
115°	4	9	28	41	46	4
125°	3	2	17	28	32	2
135°	2	1	6	15	19	1
145°	1	0	0	4	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°	739.6	739.6	739.6	739.6	739.6
2.5°	741.8	740.3	735.3	740.3	739.6
5°	739.6	738.2	733.1	738.9	738.2
7.5°	734.5	733.8	728.7	733.8	733.1
10°	727.3	727.3	721.5	726.6	725.8
12.5°	717.1	717.9	713.5	717.1	715.0
15°	706.3	707.0	701.9	706.3	703.4
17.5°	692.5	693.9	688.9	692.5	690.3
20°	677.3	678.7	673.6	675.8	675.8
22.5°	659.8	662.7	656.9	659.8	657.7
25°	641.7	643.9	639.5	642.4	638.8
27.5°	622.1	625.0	620.0	622.1	620.7
30°	599.7	604.0	599.7	601.1	600.4
32.5°	579.4	583.0	580.1	581.5	580.8
35°	555.4	560.5	558.3	560.5	560.5
37.5°	532.2	536.6	535.9	538.8	538.0
40°	508.3	514.1	513.4	516.3	517.7
42.5°	482.2	490.2	492.3	496.0	496.0
45°	457.5	465.5	469.1	474.2	474.9
47.5°	432.2	439.4	445.2	452.5	453.9
50°	406.1	414.0	422.0	430.0	432.2
52.5°	378.5	388.7	398.8	407.5	409.0
55°	351.7	363.3	374.9	382.9	385.8
57.5°	324.1	337.9	351.0	359.7	361.8
60°	296.6	311.1	325.6	336.5	338.6
62.5°	269.7	284.2	300.2	312.5	315.4
65°	242.2	258.9	276.3	287.1	290.0
67.5°	216.8	232.8	250.2	263.2	266.8
70°	188.5	205.2	224.1	237.8	242.2
72.5°	161.0	178.4	199.4	214.6	217.5
75°	133.4	152.3	175.5	190.0	193.6
77.5°	106.6	128.3	150.1	166.0	169.0
80°	81.9	103.7	128.3	144.3	147.2
82.5°	59.5	82.7	108.0	123.3	129.1
85°	39.9	63.8	89.2	105.1	110.9
87.5°	25.4	48.6	73.2	89.9	95.0
90°	11.6	34.8	59.5	76.1	81.2
92.5°	10.2	31.2	56.6	72.5	77.6
95°	9.4	28.3	52.9	68.9	74.0
97.5°	8.7	26.1	50.0	65.3	70.3
100°	8.0	23.2	46.4	61.6	66.0
102.5°	7.3	21.0	43.5	58.0	62.4
105°	6.5	18.1	39.9	54.4	59.5
107.5°	5.8	16.0	37.0	51.5	55.8
110°	5.1	13.8	34.1	47.9	52.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.1	11.6	31.2	44.2	49.3
115°	4.4	9.4	28.3	41.3	45.7
117.5°	3.6	7.3	25.4	37.7	42.8
120°	3.6	5.8	22.5	34.8	39.2
122.5°	2.9	3.6	19.6	31.2	35.5
125°	2.9	2.2	16.7	28.3	31.9
127.5°	2.2	1.5	13.8	24.7	29.0
130°	2.2	1.5	11.6	21.8	25.4
132.5°	1.5	1.5	8.7	18.9	21.8
135°	1.5	0.7	5.8	15.2	18.9
137.5°	1.5	0.7	3.6	12.3	15.2
140°	0.7	0.7	1.5	9.4	12.3
142.5°	0.7	0.0	0.0	6.5	9.4
145°	0.7	0.0	0.0	3.6	6.5
147.5°	0.0	0.0	0.0	1.5	2.9
150°	0.0	0.0	0.0	0.0	0.7
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	15.68	17.22	16.14	17.66	18.12	16.73	18.26	17.18	18.70	19.16
	3H	17.33	18.73	17.81	19.18	19.68	18.90	20.30	19.37	20.75	21.25
	4H	17.90	19.22	18.40	19.69	20.21	19.87	21.18	20.36	21.65	22.17
	6H	18.28	19.51	18.79	19.99	20.52	20.76	21.99	21.27	22.47	23.01
	8H	18.39	19.56	18.90	20.06	20.61	21.20	22.37	21.71	22.88	23.42
	12H	18.45	19.57	18.97	20.07	20.64	21.66	22.78	22.18	23.28	23.85
4H	2H	16.45	17.76	16.94	18.23	18.75	17.26	18.58	17.75	19.05	19.56
	3H	18.32	19.44	18.83	19.95	20.50	19.65	20.77	20.16	21.28	21.82
	4H	19.03	20.05	19.55	20.57	21.14	20.77	21.78	21.29	22.31	22.88
	6H	19.54	20.43	20.08	20.98	21.57	21.83	22.73	22.38	23.28	23.87
	8H	19.69	20.53	20.24	21.08	21.68	22.35	23.19	22.90	23.74	24.34
	12H	19.79	20.55	20.36	21.13	21.73	22.91	23.67	23.48	24.25	24.85
8H	4H	19.51	20.35	20.06	20.90	21.50	21.02	21.87	21.58	22.42	23.02
	6H	20.17	20.88	20.76	21.48	22.08	22.25	22.96	22.83	23.55	24.16
	8H	20.41	21.05	21.01	21.66	22.28	22.89	23.52	23.48	24.13	24.75
	12H	20.60	21.16	21.19	21.75	22.44	23.60	24.17	24.19	24.76	25.45
12H	4H	19.61	20.37	20.18	20.95	21.56	21.04	21.81	21.61	22.38	22.99
	6H	20.34	20.98	20.93	21.58	22.20	22.30	22.94	22.89	23.54	24.16
	8H	20.66	21.22	21.25	21.81	22.50	23.00	23.57	23.60	24.16	24.85