

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: P242781

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242781
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S610D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

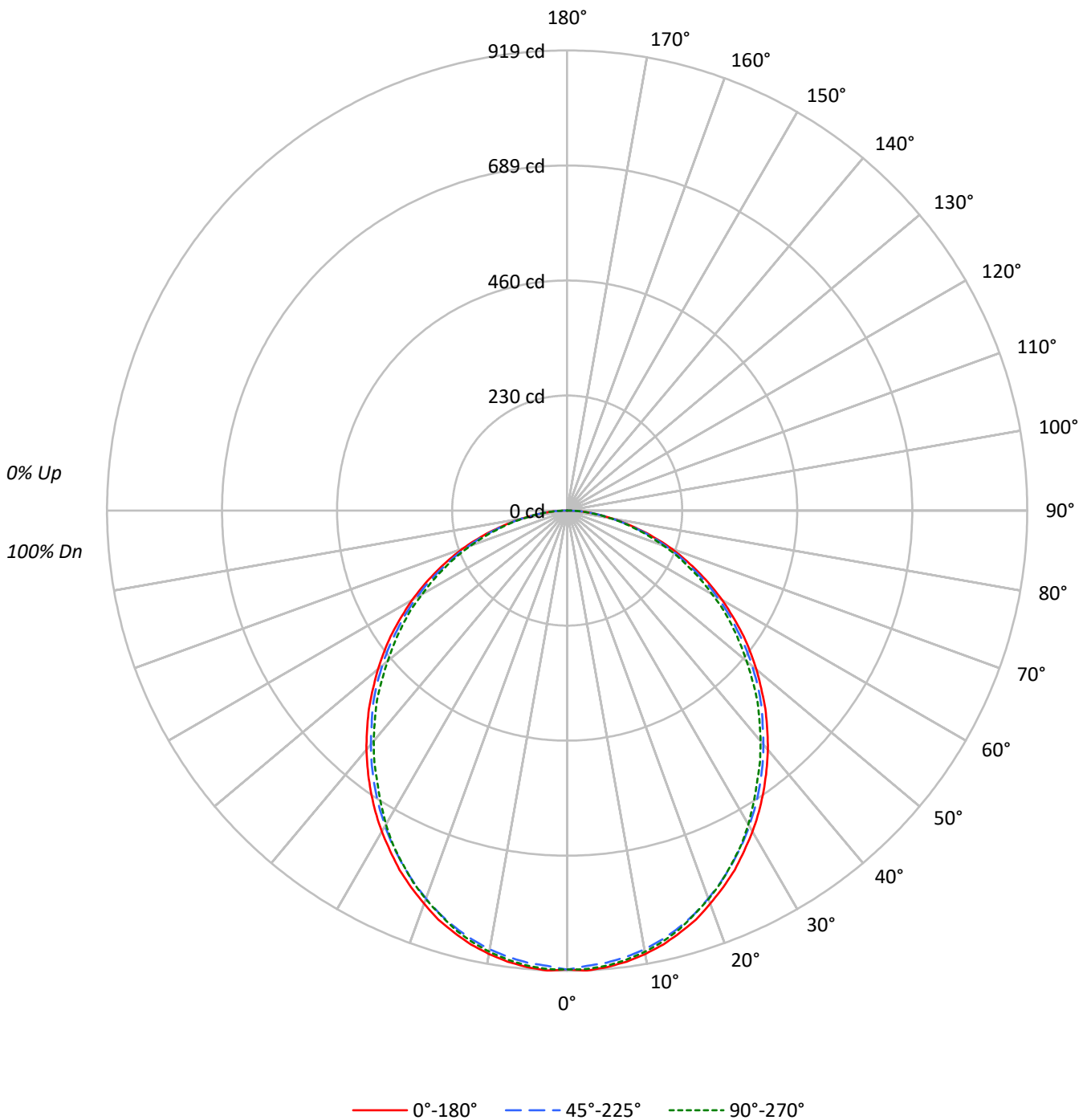
Lumens per Lamp: N/A
Luminaire Lumens: 2385.5 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84				84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70				70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59				59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51				51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44				44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39				39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34				34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31				31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28				28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25				25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6514	6514	6514
5°	6529	6467	6508
10°	6489	6421	6458
15°	6418	6344	6371
20°	6318	6235	6247
25°	6209	6107	6101
30°	6076	5969	5939
35°	5933	5819	5738
40°	5786	5658	5577
45°	5627	5510	5401
50°	5452	5332	5171
55°	5284	5130	4986
60°	5082	4927	4752
65°	4842	4682	4524
70°	4611	4399	4250
75°	4201	4061	3921
80°	3741	3680	3590
85°	3254	3311	3131

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5627 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	3.6
10°-20°	244.3	10.2
20°-30°	360.7	15.1
30°-40°	420.8	17.6
40°-50°	422.6	17.7
50°-60°	371.0	15.6
60°-70°	276.3	11.6
70°-80°	157.8	6.6
80°-90°	45.6	1.9
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°	691.4	29.0
0°-40°	1112.2	46.6
0°-60°	1905.8	79.9
0°-90°	2385.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2385.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	916	916	916	916	916	
5°	915	914	906	913	912	87
15°	872	870	862	866	866	246
25°	792	788	779	780	778	364
35°	684	681	671	667	661	428
45°	560	557	548	540	537	431
55°	426	424	414	408	402	381
65°	288	286	278	272	269	286
75°	153	152	148	146	143	163
85°	40	41	41	40	38	46
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	916.5	916.5	916.5	916.5	916.5
2.5°	919.4	917.3	910.0	917.3	916.5
5°	915.1	913.6	906.4	912.9	912.2
7.5°	908.6	907.1	899.1	905.7	904.9
10°	899.1	897.7	889.7	895.5	894.8
12.5°	887.5	884.6	877.4	881.7	881.7
15°	872.3	870.1	862.2	865.8	865.8
17.5°	856.4	852.7	844.8	849.1	845.5
20°	835.3	833.9	824.4	829.5	825.9
22.5°	814.3	811.4	802.7	805.6	803.4
25°	791.8	788.2	778.8	780.2	778.0
27.5°	765.7	763.5	754.1	754.8	752.7
30°	740.3	738.2	727.3	725.8	723.7
32.5°	712.8	709.2	699.7	696.8	692.5
35°	683.8	680.9	670.7	667.1	661.3
37.5°	654.0	650.4	641.0	635.9	632.3
40°	623.6	620.0	609.8	603.3	601.1
42.5°	591.0	588.1	577.9	572.1	568.5
45°	559.8	556.9	548.2	539.5	537.3
47.5°	525.7	526.4	515.6	506.9	501.8
50°	493.1	490.9	482.2	472.8	467.7
52.5°	459.7	458.3	448.8	440.9	435.1
55°	426.4	424.2	414.0	407.5	402.4
57.5°	390.8	390.1	381.4	372.7	370.5
60°	357.5	354.6	346.6	339.4	334.3
62.5°	322.7	320.5	314.0	306.0	302.4
65°	287.9	286.4	278.4	271.9	269.0
67.5°	253.8	250.9	245.1	239.3	237.8
70°	221.9	218.3	211.7	207.4	204.5
72.5°	187.1	184.9	181.3	176.2	173.3
75°	153.0	151.5	147.9	145.7	142.8
77.5°	121.1	120.4	118.2	116.7	114.6
80°	91.4	91.4	89.9	89.2	87.7
82.5°	65.3	63.8	63.8	62.4	62.4
85°	39.9	40.6	40.6	39.9	38.4
87.5°	19.6	19.6	18.9	18.9	17.4
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	17.86	19.48	18.22	19.79	20.11	17.53	19.15	17.90	19.47	19.78
	3H	19.63	21.09	20.01	21.42	21.78	19.26	20.73	19.64	21.05	21.41
	4H	20.29	21.66	20.69	22.01	22.39	19.91	21.29	20.31	21.64	22.01
	6H	20.76	22.04	21.17	22.40	22.80	20.40	21.67	20.81	22.04	22.43
	8H	20.92	22.14	21.34	22.53	22.93	20.56	21.78	20.98	22.17	22.56
	12H	21.03	22.19	21.46	22.58	23.01	20.67	21.84	21.10	22.22	22.65
4H	2H	18.44	19.82	18.84	20.16	20.54	18.18	19.56	18.58	19.90	20.28
	3H	20.43	21.59	20.84	21.99	22.39	20.13	21.29	20.54	21.68	22.08
	4H	21.22	22.26	21.65	22.68	23.11	20.91	21.95	21.34	22.36	22.80
	6H	21.83	22.74	22.28	23.18	23.64	21.52	22.43	21.97	22.87	23.33
	8H	22.03	22.89	22.49	23.33	23.80	21.73	22.58	22.19	23.03	23.49
	12H	22.19	22.95	22.67	23.43	23.90	21.88	22.65	22.36	23.13	23.60
8H	4H	21.51	22.36	21.97	22.80	23.27	21.23	22.08	21.69	22.52	22.99
	6H	22.24	22.95	22.73	23.43	23.91	21.97	22.68	22.46	23.17	23.64
	8H	22.52	23.15	23.02	23.66	24.15	22.25	22.89	22.76	23.40	23.88
	12H	22.75	23.31	23.25	23.80	24.36	22.49	23.05	22.99	23.54	24.10
12H	4H	21.54	22.30	22.02	22.78	23.25	21.27	22.03	21.75	22.51	22.98
	6H	22.29	22.93	22.80	23.43	23.92	22.03	22.67	22.54	23.17	23.66
	8H	22.63	23.19	23.13	23.68	24.24	22.37	22.94	22.88	23.43	23.99