

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: P243641

Luminaire Tested: S125DRP-H610D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243641
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H610D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

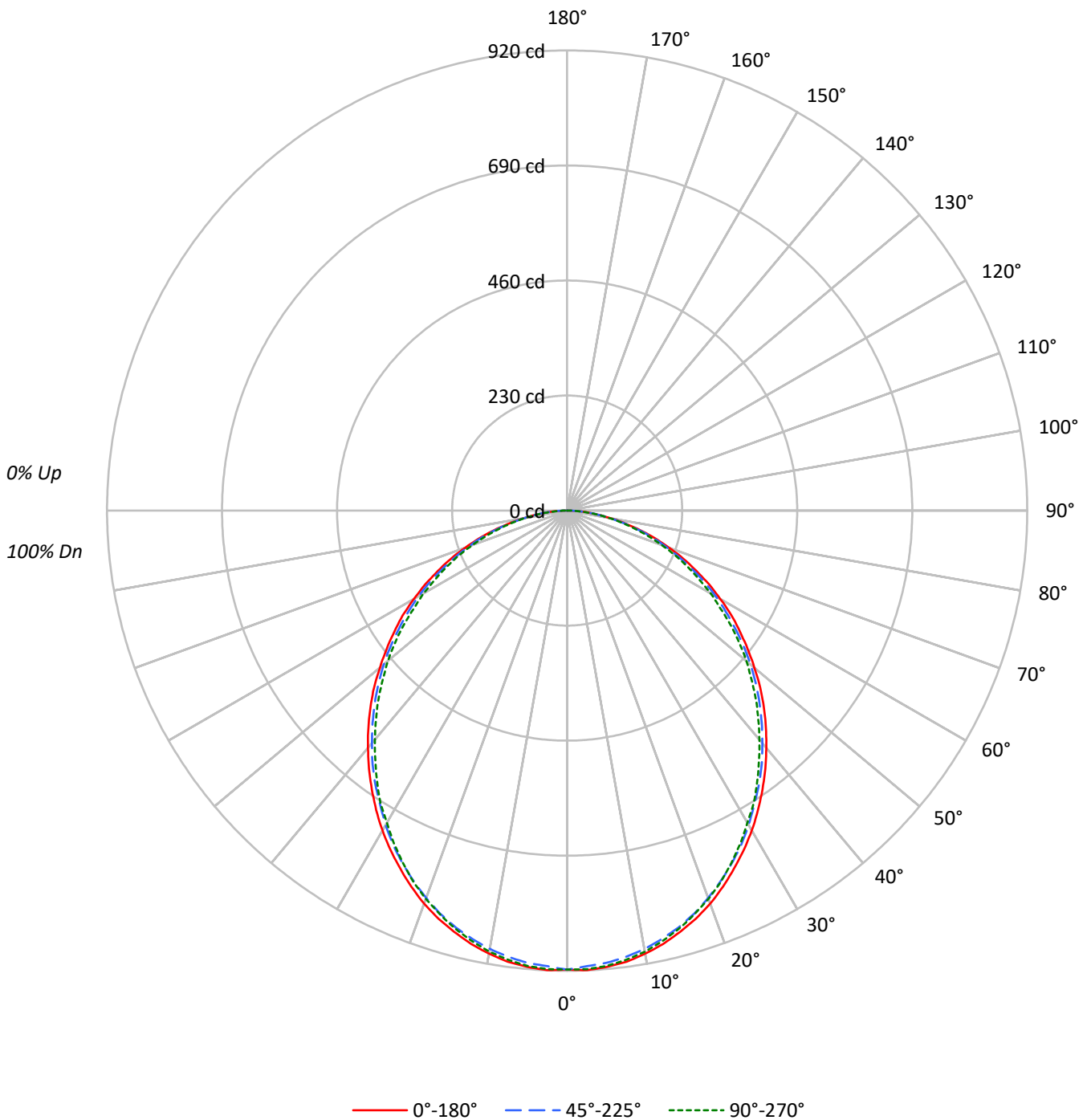
Lumens per Lamp: N/A
Luminaire Lumens: 2368.7 lumens
Efficiency: N/A
Efficacy: 137.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
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	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	95	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	73	70				70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60				60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51				51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44				44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39				39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35				35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31				31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28				28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25				25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6522	6522	6522
5°	6532	6475	6518
10°	6492	6423	6462
15°	6415	6346	6365
20°	6325	6233	6248
25°	6193	6103	6093
30°	6062	5957	5912
35°	5906	5800	5748
40°	5747	5635	5547
45°	5590	5468	5366
50°	5405	5293	5174
55°	5223	5080	4947
60°	5025	4881	4708
65°	4790	4620	4462
70°	4491	4322	4183
75°	4141	4012	3828
80°	3610	3581	3499
85°	3131	3131	2968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5590 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.6	3.7
10°-20°	244.3	10.3
20°-30°	360.1	15.2
30°-40°	419.4	17.7
40°-50°	420.3	17.7
50°-60°	367.4	15.5
60°-70°	272.7	11.5
70°-80°	154.6	6.5
80°-90°	43.4	1.8
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°	691.0	29.2
0°-40°	1110.4	46.9
0°-60°	1898.1	80.1
0°-90°	2368.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2368.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	916	914	908	914	914	87
15°	872	870	862	867	865	246
25°	790	787	778	780	777	364
35°	681	677	668	664	662	426
45°	556	555	544	536	534	429
55°	422	421	410	401	399	377
65°	285	283	275	269	265	282
75°	151	148	146	143	139	160
85°	38	38	38	37	36	45
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	917.7	917.7	917.7	917.7	917.7
2.5°	919.7	918.3	911.6	918.3	917.7
5°	915.6	914.3	907.6	914.3	913.6
7.5°	909.6	907.6	900.1	906.9	905.5
10°	899.5	898.1	890.0	895.4	895.4
12.5°	887.4	885.3	877.3	882.0	881.3
15°	871.9	870.5	862.4	867.2	865.1
17.5°	855.7	852.3	844.9	849.0	846.3
20°	836.2	833.5	824.1	827.4	826.1
22.5°	814.0	810.6	801.9	803.9	803.2
25°	789.7	787.0	778.3	780.3	776.9
27.5°	764.8	761.5	753.4	753.4	750.0
30°	738.6	735.2	725.8	725.8	720.4
32.5°	710.3	707.6	696.1	695.5	694.1
35°	680.7	676.6	668.5	664.5	662.5
37.5°	651.0	647.7	638.9	633.5	630.2
40°	619.4	617.4	607.3	602.6	597.9
42.5°	588.4	586.4	575.6	567.6	565.5
45°	556.1	554.8	544.0	535.9	533.9
47.5°	523.8	522.4	511.7	502.9	499.6
50°	488.8	488.8	478.7	469.9	467.9
52.5°	455.1	454.4	444.4	435.6	433.6
55°	421.5	420.8	410.0	401.3	399.2
57.5°	389.8	385.8	376.4	369.6	362.9
60°	353.5	351.4	343.4	334.6	331.2
62.5°	319.8	317.1	309.0	301.6	296.9
65°	284.8	282.8	274.7	268.6	265.3
67.5°	251.8	249.1	241.0	236.3	233.6
70°	216.1	214.1	208.0	202.0	201.3
72.5°	184.5	181.8	178.4	173.0	170.3
75°	150.8	148.1	146.1	143.4	139.4
77.5°	118.5	117.1	115.8	113.8	111.8
80°	88.2	88.2	87.5	86.2	85.5
82.5°	62.6	63.3	61.3	59.9	59.9
85°	38.4	38.4	38.4	37.0	36.4
87.5°	18.9	16.8	16.8	15.5	15.5
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	17.82	19.44	18.19	19.75	20.07	17.49	19.10	17.85	19.42	19.73
	3H	19.58	21.04	19.96	21.37	21.73	19.20	20.66	19.58	20.98	21.35
	4H	20.23	21.60	20.63	21.95	22.33	19.84	21.21	20.24	21.56	21.93
	6H	20.69	21.97	21.10	22.33	22.72	20.31	21.59	20.72	21.95	22.34
	8H	20.84	22.06	21.27	22.45	22.84	20.47	21.68	20.89	22.07	22.47
	12H	20.94	22.11	21.37	22.49	22.92	20.57	21.73	21.00	22.11	22.54
4H	2H	18.40	19.77	18.79	20.12	20.49	18.13	19.50	18.53	19.85	20.23
	3H	20.38	21.53	20.79	21.92	22.32	20.06	21.21	20.47	21.61	22.01
	4H	21.15	22.19	21.58	22.61	23.04	20.83	21.87	21.26	22.28	22.72
	6H	21.74	22.65	22.20	23.09	23.55	21.43	22.34	21.88	22.78	23.23
	8H	21.94	22.79	22.40	23.23	23.70	21.63	22.48	22.09	22.92	23.39
	12H	22.09	22.85	22.57	23.33	23.80	21.77	22.54	22.25	23.01	23.48
8H	4H	21.44	22.29	21.90	22.73	23.19	21.15	22.00	21.61	22.44	22.91
	6H	22.14	22.85	22.64	23.34	23.81	21.87	22.58	22.36	23.06	23.54
	8H	22.42	23.05	22.93	23.56	24.04	22.14	22.77	22.65	23.28	23.77
	12H	22.64	23.20	23.14	23.69	24.25	22.36	22.92	22.86	23.41	23.97
12H	4H	21.46	22.23	21.94	22.70	23.17	21.18	21.95	21.66	22.42	22.89
	6H	22.19	22.83	22.70	23.34	23.82	21.93	22.56	22.44	23.07	23.56
	8H	22.52	23.08	23.03	23.57	24.14	22.26	22.82	22.76	23.31	23.87