

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: P243716

Luminaire Tested: S125DRP-H850D930-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243716
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H850D930-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

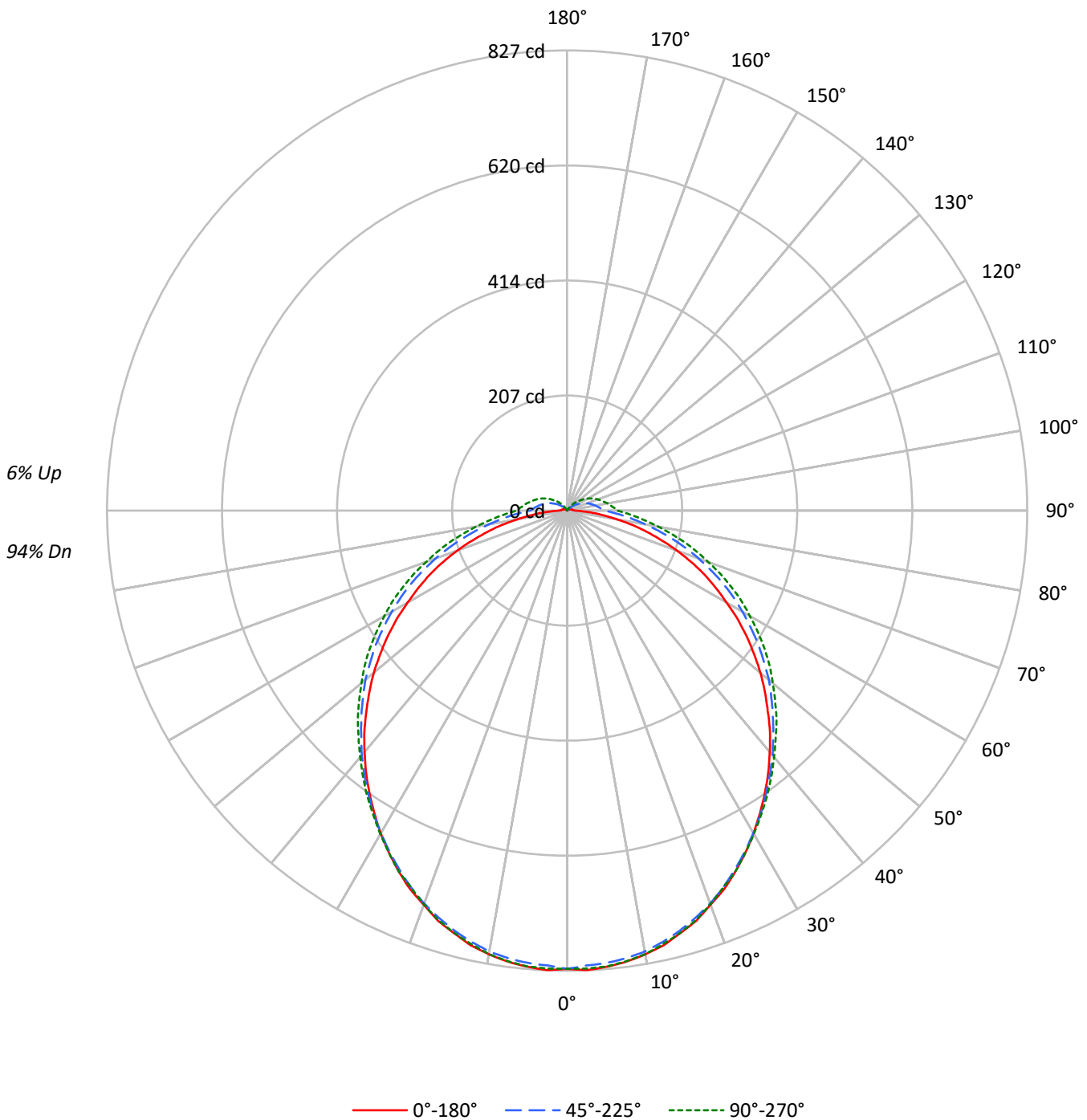
Lumens per Lamp: N/A
Luminaire Lumens: 2557.4 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 23.6
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°	5854	5854	5854
5°	5860	5738	5758
10°	5823	5642	5628
15°	5752	5508	5468
20°	5656	5359	5284
25°	5556	5186	5104
30°	5430	5011	4906
35°	5296	4840	4730
40°	5162	4675	4553
45°	5018	4509	4408
50°	4891	4371	4255
55°	4732	4201	4114
60°	4537	4018	3935
65°	4381	3824	3760
70°	4122	3585	3532
75°	3772	3305	3329
80°	3360	3000	3074
85°	2991	2806	2925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5018 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	3.0
10°-20°	221.4	8.7
20°-30°	329.6	12.9
30°-40°	390.5	15.3
40°-50°	404.0	15.8
50°-60°	372.7	14.6
60°-70°	301.2	11.8
70°-80°	201.2	7.9
80°-90°	103.8	4.1
90°-100°	58.2	2.3
100°-110°	43.2	1.7
110°-120°	28.8	1.1
120°-130°	16.1	0.6
130°-140°	7.2	0.3
140°-150°	1.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	629.0	24.6
0°-40°	1019.5	39.9
0°-60°	1796.2	70.2
0°-90°	2402.4	93.9
90°-120°	130.2	5.1
90°-150°	155.0	6.1
90°-180°	155.0	6.1
0°-180°	2557.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	823	822	816	822	822	78
15°	786	789	782	786	786	222
25°	716	719	712	716	716	330
35°	620	624	623	626	626	388
45°	510	518	523	531	532	394
55°	394	406	419	429	433	352
65°	272	288	308	322	326	269
75°	148	170	195	212	218	158
85°	46	72	100	117	123	47
90°	13	38	66	84	91	9
95°	11	32	59	76	82	8
105°	8	21	45	61	66	8
115°	5	11	31	46	51	5
125°	3	3	18	30	35	3
135°	2	2	7	18	21	1
145°	1	0	0	5	7	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°	823.6	823.6	823.6	823.6	823.6
2.5°	826.7	824.4	818.3	824.4	823.6
5°	822.9	822.1	816.0	822.1	822.1
7.5°	817.6	816.8	811.5	817.6	816.8
10°	809.9	809.9	804.6	809.2	809.2
12.5°	800.1	800.1	794.0	799.3	797.8
15°	786.3	788.6	781.8	786.3	785.6
17.5°	772.6	772.6	767.3	771.1	771.1
20°	753.6	756.7	751.3	755.1	752.9
22.5°	736.9	738.4	733.1	736.9	733.1
25°	715.6	718.6	712.5	716.3	715.6
27.5°	693.5	695.8	691.2	695.8	693.5
30°	669.9	672.2	669.1	672.2	671.4
32.5°	644.8	649.3	647.0	649.3	648.6
35°	619.6	624.2	622.7	625.7	626.5
37.5°	593.8	598.3	598.3	602.1	602.9
40°	566.4	572.4	574.0	579.3	578.5
42.5°	539.7	545.8	548.1	554.9	554.9
45°	510.0	518.4	523.0	531.3	532.1
47.5°	481.9	491.0	497.8	505.5	507.0
50°	453.7	462.1	473.5	481.1	482.6
52.5°	423.2	433.9	445.3	456.0	459.0
55°	393.6	405.7	419.4	429.3	433.1
57.5°	363.1	376.0	391.3	403.5	406.5
60°	331.1	346.4	363.9	376.0	379.1
62.5°	301.4	318.2	336.5	349.4	354.0
65°	272.5	288.5	308.3	322.0	325.8
67.5°	241.3	258.8	279.4	294.6	298.4
70°	210.1	229.1	251.2	265.7	269.5
72.5°	178.1	199.4	223.0	239.0	243.6
75°	148.4	170.5	194.9	211.6	217.7
77.5°	120.3	143.1	167.5	185.0	190.3
80°	92.1	115.7	142.3	160.6	165.9
82.5°	67.0	92.1	119.5	137.8	143.1
85°	45.7	71.6	99.7	117.2	123.3
87.5°	28.2	53.3	82.2	99.7	105.8
90°	12.9	38.1	66.2	84.5	90.6
92.5°	11.4	35.0	62.4	80.7	86.0
95°	10.7	32.0	58.6	76.1	81.5
97.5°	9.9	28.9	54.8	72.3	77.6
100°	9.1	25.9	51.8	68.5	73.8
102.5°	8.4	23.6	48.0	64.7	69.3
105°	7.6	20.6	44.9	60.9	66.2
107.5°	6.9	17.5	41.9	57.1	62.4
110°	6.1	15.2	38.1	53.3	58.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	12.9	35.0	49.5	54.8
115°	5.3	10.7	31.2	45.7	51.0
117.5°	4.6	8.4	27.4	41.9	47.2
120°	3.8	6.1	24.4	38.1	43.4
122.5°	3.8	4.6	21.3	34.3	39.6
125°	3.0	3.0	18.3	29.7	35.0
127.5°	3.0	2.3	15.2	26.6	30.4
130°	2.3	1.5	12.9	23.6	27.4
132.5°	2.3	1.5	9.9	20.6	24.4
135°	1.5	1.5	6.9	17.5	20.6
137.5°	1.5	0.8	4.6	13.7	17.5
140°	0.8	0.8	1.5	10.7	13.7
142.5°	0.8	0.8	0.8	7.6	10.7
145°	0.8	0.0	0.0	4.6	6.9
147.5°	0.8	0.0	0.0	1.5	3.8
150°	0.0	0.0	0.0	0.0	0.8
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	16.05	17.59	16.51	18.02	18.49	17.14	18.68	17.60	19.11	19.58
	3H	17.70	19.10	18.17	19.55	20.05	19.31	20.70	19.78	21.15	21.66
	4H	18.27	19.59	18.76	20.06	20.58	20.27	21.59	20.76	22.06	22.57
	6H	18.66	19.88	19.16	20.37	20.90	21.17	22.40	21.68	22.88	23.41
	8H	18.76	19.94	19.28	20.44	20.98	21.60	22.78	22.12	23.28	23.82
	12H	18.83	19.95	19.35	20.45	21.02	22.05	23.18	22.58	23.68	24.25
4H	2H	16.82	18.14	17.31	18.60	19.12	17.67	18.99	18.16	19.46	19.98
	3H	18.70	19.82	19.20	20.33	20.87	20.05	21.17	20.56	21.68	22.22
	4H	19.40	20.42	19.93	20.94	21.52	21.16	22.18	21.69	22.70	23.28
	6H	19.92	20.81	20.46	21.36	21.95	22.23	23.13	22.78	23.68	24.27
	8H	20.07	20.91	20.62	21.46	22.06	22.75	23.59	23.30	24.14	24.74
	12H	20.17	20.94	20.74	21.51	22.12	23.30	24.06	23.87	24.64	25.24
8H	4H	19.89	20.73	20.44	21.28	21.88	21.42	22.26	21.97	22.81	23.41
	6H	20.55	21.26	21.14	21.85	22.46	22.64	23.35	23.22	23.94	24.55
	8H	20.79	21.43	21.39	22.04	22.66	23.28	23.92	23.87	24.52	25.14
	12H	20.98	21.55	21.58	22.14	22.83	23.98	24.55	24.58	25.14	25.83
12H	4H	19.98	20.75	20.56	21.32	21.93	21.44	22.20	22.01	22.78	23.38
	6H	20.71	21.35	21.31	21.96	22.58	22.69	23.33	23.29	23.93	24.55
	8H	21.03	21.60	21.63	22.19	22.88	23.39	23.96	23.99	24.55	25.24