

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: P243697

Luminaire Tested: S125DRP-H850D927-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243697
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-H850D927-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

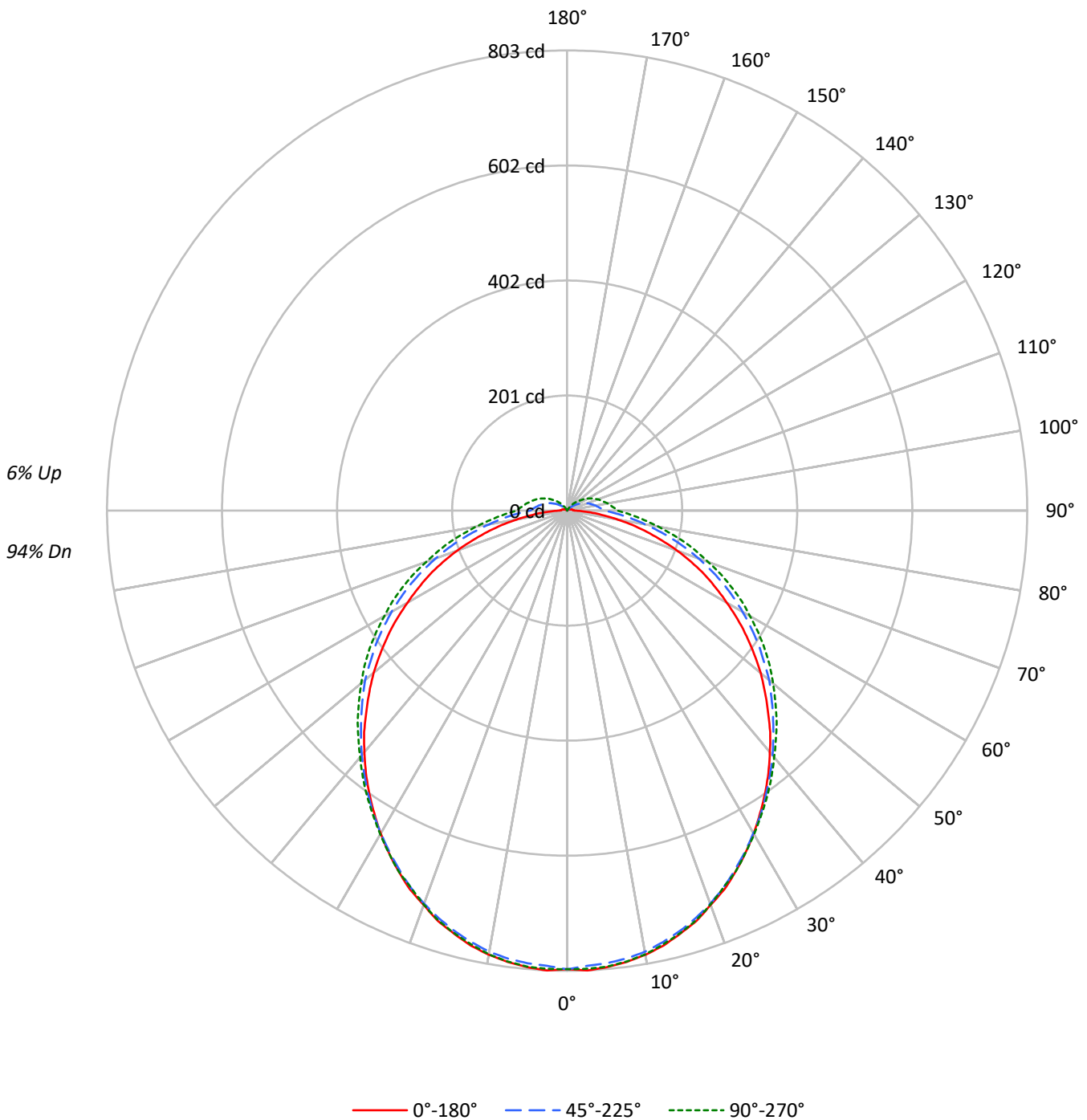
Lumens per Lamp: N/A
Luminaire Lumens: 2484.9 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

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	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°	5688	5688	5688
5°	5694	5576	5595
10°	5658	5482	5468
15°	5590	5351	5313
20°	5495	5207	5134
25°	5398	5039	4960
30°	5276	4869	4767
35°	5147	4703	4595
40°	5015	4542	4424
45°	4877	4380	4283
50°	4752	4247	4134
55°	4597	4082	3998
60°	4409	3904	3823
65°	4257	3716	3654
70°	4005	3484	3431
75°	3666	3210	3234
80°	3265	2916	2987
85°	2906	2728	2842

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4877 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.7	3.0
10°-20°	215.2	8.7
20°-30°	320.3	12.9
30°-40°	379.4	15.3
40°-50°	392.6	15.8
50°-60°	362.1	14.6
60°-70°	292.6	11.8
70°-80°	195.5	7.9
80°-90°	100.9	4.1
90°-100°	56.6	2.3
100°-110°	42.0	1.7
110°-120°	27.9	1.1
120°-130°	15.6	0.6
130°-140°	7.0	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°	611.1	24.6
0°-40°	990.6	39.9
0°-60°	1745.3	70.2
0°-90°	2334.3	93.9
90°-120°	126.5	5.1
90°-150°	150.6	6.1
90°-180°	151.0	6.1
0°-180°	2484.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	800	799	793	799	799	76
15°	764	766	760	764	763	215
25°	695	698	692	696	695	320
35°	602	606	605	608	609	377
45°	496	504	508	516	517	383
55°	382	394	408	417	421	342
65°	265	280	300	313	317	261
75°	144	166	189	206	212	153
85°	44	70	97	114	120	46
90°	13	37	64	82	88	9
95°	10	31	57	74	79	8
105°	7	20	44	59	64	8
115°	5	10	30	44	50	5
125°	3	3	18	29	34	3
135°	2	2	7	17	20	1
145°	1	0	0	4	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°	800.3	800.3	800.3	800.3	800.3
2.5°	803.3	801.0	795.1	801.0	800.3
5°	799.6	798.8	792.9	798.8	798.8
7.5°	794.4	793.6	788.5	794.4	793.6
10°	787.0	787.0	781.8	786.2	786.2
12.5°	777.4	777.4	771.4	776.6	775.1
15°	764.1	766.3	759.6	764.1	763.3
17.5°	750.7	750.7	745.6	749.3	749.3
20°	732.2	735.2	730.0	733.7	731.5
22.5°	716.0	717.5	712.3	716.0	712.3
25°	695.3	698.2	692.3	696.0	695.3
27.5°	673.8	676.0	671.6	676.0	673.8
30°	650.9	653.1	650.1	653.1	652.4
32.5°	626.5	630.9	628.7	630.9	630.2
35°	602.1	606.5	605.0	608.0	608.7
37.5°	576.9	581.4	581.4	585.1	585.8
40°	550.3	556.2	557.7	562.9	562.1
42.5°	524.4	530.3	532.5	539.2	539.2
45°	495.6	503.7	508.1	516.3	517.0
47.5°	468.2	477.1	483.7	491.1	492.6
50°	440.8	449.0	460.1	467.5	468.9
52.5°	411.2	421.6	432.7	443.0	446.0
55°	382.4	394.2	407.5	417.2	420.9
57.5°	352.8	365.4	380.2	392.0	395.0
60°	321.7	336.5	353.6	365.4	368.3
62.5°	292.9	309.2	326.9	339.5	343.9
65°	264.8	280.3	299.6	312.9	316.6
67.5°	234.5	251.5	271.4	286.2	289.9
70°	204.1	222.6	244.1	258.1	261.8
72.5°	173.1	193.8	216.7	232.2	236.7
75°	144.2	165.7	189.3	205.6	211.5
77.5°	116.9	139.1	162.7	179.7	184.9
80°	89.5	112.4	138.3	156.1	161.2
82.5°	65.1	89.5	116.1	133.9	139.1
85°	44.4	69.5	96.9	113.9	119.8
87.5°	27.4	51.8	79.9	96.9	102.8
90°	12.6	37.0	64.3	82.1	88.0
92.5°	11.1	34.0	60.7	78.4	83.6
95°	10.4	31.1	57.0	74.0	79.1
97.5°	9.6	28.1	53.3	70.3	75.4
100°	8.9	25.1	50.3	66.6	71.7
102.5°	8.1	22.9	46.6	62.9	67.3
105°	7.4	20.0	43.6	59.2	64.3
107.5°	6.7	17.0	40.7	55.5	60.7
110°	5.9	14.8	37.0	51.8	57.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	12.6	34.0	48.1	53.3
115°	5.2	10.4	30.3	44.4	49.6
117.5°	4.4	8.1	26.6	40.7	45.9
120°	3.7	5.9	23.7	37.0	42.2
122.5°	3.7	4.4	20.7	33.3	38.5
125°	3.0	3.0	17.8	28.8	34.0
127.5°	3.0	2.2	14.8	25.9	29.6
130°	2.2	1.5	12.6	22.9	26.6
132.5°	2.2	1.5	9.6	20.0	23.7
135°	1.5	1.5	6.7	17.0	20.0
137.5°	1.5	0.7	4.4	13.3	17.0
140°	0.7	0.7	1.5	10.4	13.3
142.5°	0.7	0.7	0.7	7.4	10.4
145°	0.7	0.0	0.0	4.4	6.7
147.5°	0.7	0.0	0.0	1.5	3.7
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	15.95	17.49	16.41	17.93	18.39	17.04	18.58	17.50	19.01	19.48
	3H	17.60	19.00	18.07	19.45	19.95	19.21	20.60	19.68	21.05	21.55
	4H	18.17	19.49	18.66	19.96	20.48	20.17	21.49	20.66	21.96	22.47
	6H	18.56	19.78	19.06	20.27	20.80	21.07	22.30	21.58	22.78	23.31
	8H	18.67	19.84	19.18	20.34	20.88	21.50	22.68	22.02	23.18	23.72
	12H	18.73	19.85	19.25	20.35	20.92	21.95	23.08	22.48	23.58	24.15
4H	2H	16.72	18.04	17.21	18.50	19.02	17.57	18.89	18.06	19.36	19.87
	3H	18.60	19.72	19.10	20.23	20.77	19.95	21.07	20.46	21.58	22.12
	4H	19.30	20.32	19.83	20.85	21.42	21.06	22.08	21.59	22.60	23.18
	6H	19.82	20.71	20.36	21.26	21.85	22.13	23.03	22.68	23.58	24.17
	8H	19.97	20.81	20.52	21.36	21.96	22.65	23.49	23.20	24.04	24.64
	12H	20.07	20.84	20.65	21.41	22.02	23.20	23.96	23.77	24.54	25.14
8H	4H	19.79	20.63	20.34	21.18	21.78	21.32	22.16	21.87	22.71	23.31
	6H	20.45	21.16	21.04	21.75	22.36	22.54	23.25	23.12	23.84	24.45
	8H	20.69	21.33	21.29	21.94	22.56	23.18	23.82	23.77	24.42	25.04
	12H	20.88	21.45	21.48	22.04	22.73	23.88	24.45	24.48	25.04	25.73
12H	4H	19.88	20.65	20.46	21.22	21.83	21.34	22.10	21.91	22.68	23.28
	6H	20.61	21.25	21.21	21.86	22.48	22.59	23.23	23.19	23.83	24.45
	8H	20.93	21.50	21.53	22.09	22.78	23.29	23.86	23.89	24.45	25.14