

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: P243721

Luminaire Tested: S125DRP-H850D935-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243721
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-H850D935-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

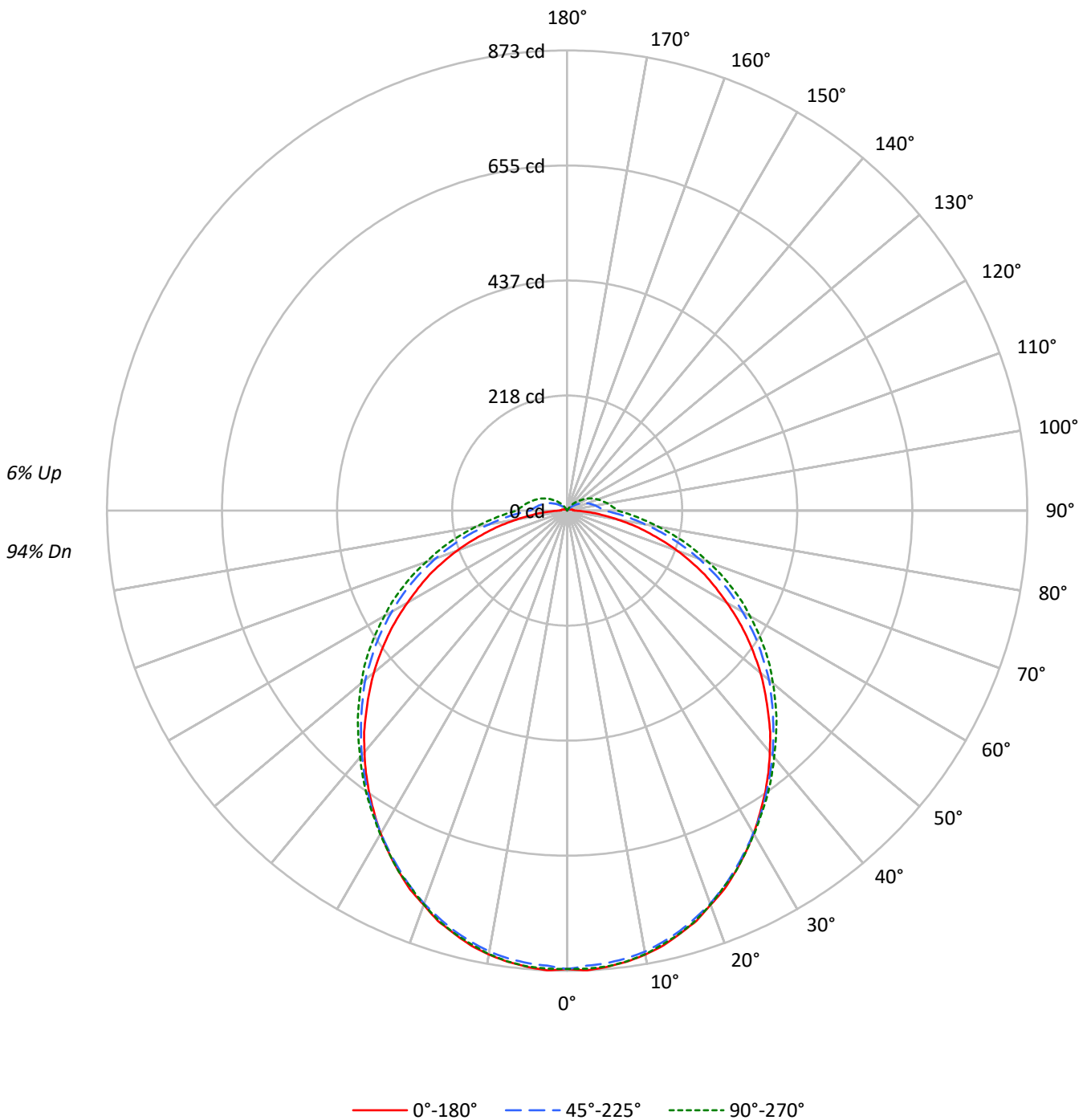
Lumens per Lamp: N/A
Luminaire Lumens: 2700.7 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 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°	6182	6182	6182
5°	6188	6061	6081
10°	6149	5958	5943
15°	6075	5816	5774
20°	5973	5659	5581
25°	5867	5477	5390
30°	5734	5292	5181
35°	5594	5112	4995
40°	5451	4936	4809
45°	5300	4761	4655
50°	5165	4616	4494
55°	4996	4437	4345
60°	4792	4243	4156
65°	4627	4038	3971
70°	4354	3786	3729
75°	3986	3490	3516
80°	3550	3169	3246
85°	3155	2964	3089

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5300 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.3	3.0
10°-20°	233.8	8.7
20°-30°	348.1	12.9
30°-40°	412.4	15.3
40°-50°	426.7	15.8
50°-60°	393.5	14.6
60°-70°	318.0	11.8
70°-80°	212.5	7.9
80°-90°	109.6	4.1
90°-100°	61.5	2.3
100°-110°	45.6	1.7
110°-120°	30.4	1.1
120°-130°	17.0	0.6
130°-140°	7.6	0.3
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	664.2	24.6
0°-40°	1076.6	39.9
0°-60°	1896.9	70.2
0°-90°	2537.0	93.9
90°-120°	137.5	5.1
90°-150°	163.7	6.1
90°-180°	164.0	6.1
0°-180°	2700.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	869	868	862	868	868	83
15°	830	833	826	830	830	234
25°	756	759	752	756	756	348
35°	654	659	658	661	662	409
45°	539	548	552	561	562	416
55°	416	428	443	453	457	371
65°	288	305	326	340	344	284
75°	157	180	206	224	230	167
85°	48	76	105	124	130	50
90°	14	40	70	89	96	9
95°	11	34	62	80	86	9
105°	8	22	47	64	70	8
115°	6	11	33	48	54	5
125°	3	3	19	31	37	3
135°	2	2	7	18	22	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°	869.8	869.8	869.8	869.8	869.8
2.5°	873.0	870.6	864.2	870.6	869.8
5°	869.0	868.2	861.8	868.2	868.2
7.5°	863.4	862.6	857.0	863.4	862.6
10°	855.3	855.3	849.7	854.5	854.5
12.5°	844.9	844.9	838.5	844.1	842.5
15°	830.4	832.8	825.6	830.4	829.6
17.5°	816.0	816.0	810.3	814.3	814.3
20°	795.9	799.1	793.4	797.5	795.1
22.5°	778.2	779.8	774.2	778.2	774.2
25°	755.7	758.9	752.4	756.5	755.7
27.5°	732.4	734.8	729.9	734.8	732.4
30°	707.4	709.8	706.6	709.8	709.0
32.5°	680.9	685.7	683.3	685.7	684.9
35°	654.4	659.2	657.6	660.8	661.6
37.5°	627.0	631.9	631.9	635.9	636.7
40°	598.1	604.5	606.1	611.8	611.0
42.5°	570.0	576.4	578.8	586.0	586.0
45°	538.6	547.5	552.3	561.1	561.9
47.5°	508.9	518.5	525.7	533.8	535.4
50°	479.1	488.0	500.0	508.1	509.7
52.5°	447.0	458.2	470.3	481.5	484.8
55°	415.6	428.5	442.9	453.4	457.4
57.5°	383.5	397.1	413.2	426.1	429.3
60°	349.7	365.8	384.3	397.1	400.3
62.5°	318.3	336.0	355.3	369.0	373.8
65°	287.8	304.7	325.6	340.0	344.1
67.5°	254.8	273.3	295.0	311.1	315.1
70°	221.9	242.0	265.3	280.6	284.6
72.5°	188.1	210.6	235.5	252.4	257.2
75°	156.8	180.1	205.8	223.5	229.9
77.5°	127.0	151.1	176.9	195.3	201.0
80°	97.3	122.2	150.3	169.6	175.2
82.5°	70.7	97.3	126.2	145.5	151.1
85°	48.2	75.6	105.3	123.8	130.2
87.5°	29.7	56.3	86.8	105.3	111.7
90°	13.7	40.2	69.9	89.2	95.7
92.5°	12.1	37.0	65.9	85.2	90.8
95°	11.3	33.8	61.9	80.4	86.0
97.5°	10.5	30.5	57.9	76.4	82.0
100°	9.6	27.3	54.7	72.4	78.0
102.5°	8.8	24.9	50.6	68.3	73.2
105°	8.0	21.7	47.4	64.3	69.9
107.5°	7.2	18.5	44.2	60.3	65.9
110°	6.4	16.1	40.2	56.3	61.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.6	13.7	37.0	52.3	57.9
115°	5.6	11.3	33.0	48.2	53.9
117.5°	4.8	8.8	28.9	44.2	49.8
120°	4.0	6.4	25.7	40.2	45.8
122.5°	4.0	4.8	22.5	36.2	41.8
125°	3.2	3.2	19.3	31.4	37.0
127.5°	3.2	2.4	16.1	28.1	32.2
130°	2.4	1.6	13.7	24.9	28.9
132.5°	2.4	1.6	10.5	21.7	25.7
135°	1.6	1.6	7.2	18.5	21.7
137.5°	1.6	0.8	4.8	14.5	18.5
140°	0.8	0.8	1.6	11.3	14.5
142.5°	0.8	0.8	0.8	8.0	11.3
145°	0.8	0.0	0.0	4.8	7.2
147.5°	0.8	0.0	0.0	1.6	4.0
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	16.24	17.78	16.70	18.21	18.68	17.33	18.87	17.79	19.30	19.77
	3H	17.89	19.29	18.36	19.74	20.24	19.50	20.89	19.97	21.34	21.85
	4H	18.46	19.78	18.95	20.25	20.77	20.46	21.78	20.95	22.25	22.76
	6H	18.85	20.07	19.35	20.56	21.09	21.36	22.59	21.87	23.07	23.60
	8H	18.95	20.13	19.47	20.63	21.17	21.79	22.97	22.31	23.47	24.01
	12H	19.02	20.14	19.54	20.64	21.21	22.24	23.37	22.77	23.87	24.44
4H	2H	17.01	18.33	17.50	18.79	19.31	17.86	19.18	18.35	19.65	20.16
	3H	18.89	20.01	19.39	20.52	21.06	20.24	21.36	20.75	21.87	22.41
	4H	19.59	20.61	20.12	21.14	21.71	21.35	22.37	21.88	22.89	23.47
	6H	20.11	21.00	20.65	21.55	22.14	22.42	23.32	22.97	23.87	24.46
	8H	20.26	21.10	20.81	21.65	22.25	22.94	23.78	23.49	24.33	24.93
	12H	20.36	21.13	20.93	21.70	22.31	23.49	24.25	24.06	24.83	25.43
8H	4H	20.08	20.92	20.63	21.47	22.07	21.61	22.45	22.16	23.00	23.60
	6H	20.74	21.45	21.33	22.04	22.65	22.83	23.54	23.41	24.13	24.74
	8H	20.98	21.62	21.58	22.23	22.85	23.47	24.11	24.06	24.71	25.33
	12H	21.17	21.74	21.77	22.33	23.02	24.17	24.74	24.77	25.33	26.02
12H	4H	20.17	20.94	20.75	21.51	22.12	21.63	22.39	22.20	22.97	23.57
	6H	20.90	21.54	21.50	22.15	22.77	22.88	23.52	23.48	24.12	24.74
	8H	21.22	21.79	21.82	22.38	23.07	23.58	24.15	24.18	24.74	25.43