

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: P243628

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243628
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-H850D927-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

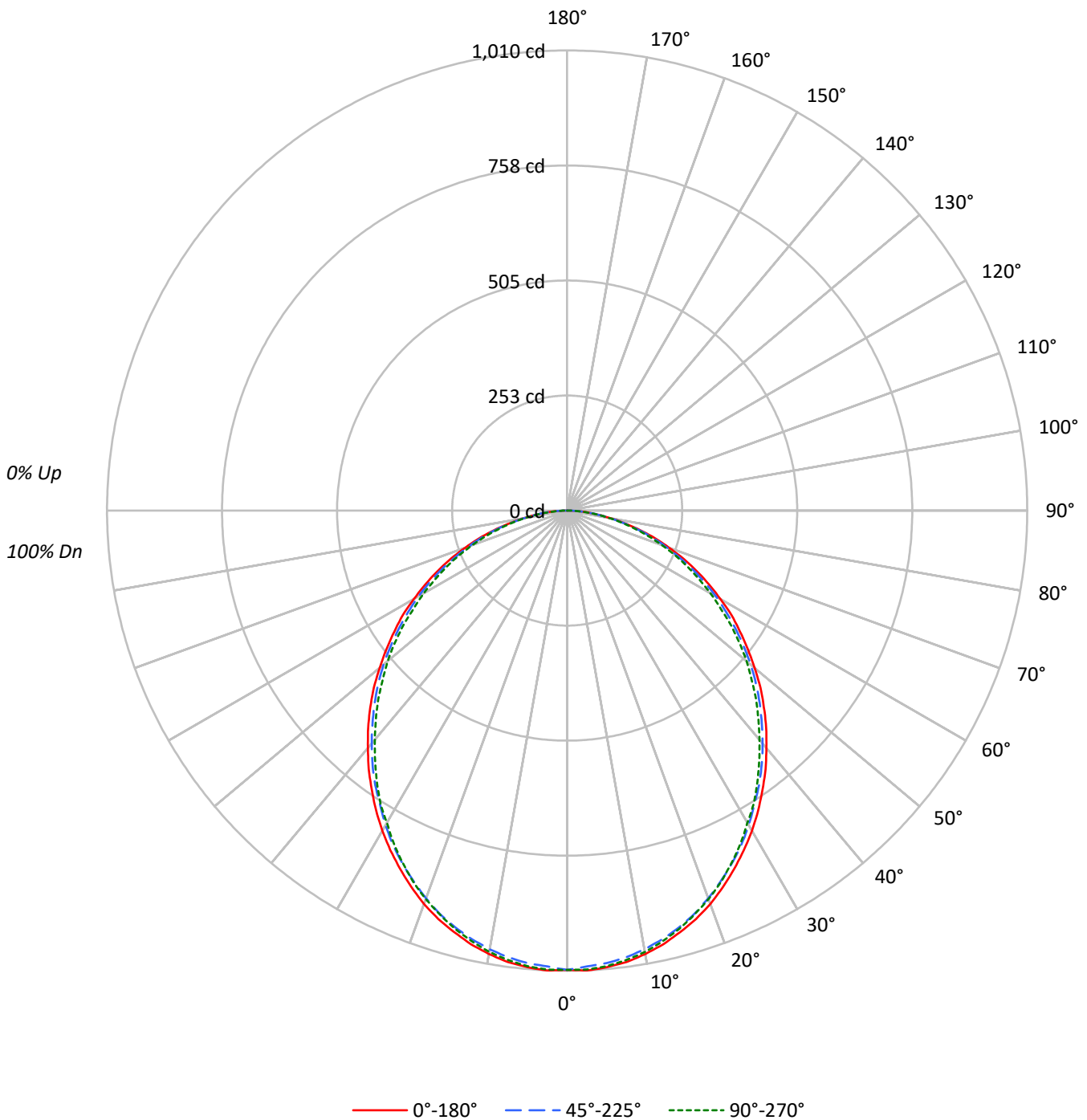
Lumens per Lamp: N/A
Luminaire Lumens: 2602.3 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7165	7165	7165
5°	7177	7113	7161
10°	7132	7057	7099
15°	7048	6972	6993
20°	6948	6847	6864
25°	6804	6705	6694
30°	6659	6543	6495
35°	6488	6373	6315
40°	6314	6190	6094
45°	6140	6007	5895
50°	5938	5815	5684
55°	5737	5581	5435
60°	5520	5362	5173
65°	5262	5075	4901
70°	4933	4750	4597
75°	4550	4407	4204
80°	3966	3937	3843
85°	3441	3441	3254

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6140 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.1	3.7
10°-20°	268.4	10.3
20°-30°	395.6	15.2
30°-40°	460.8	17.7
40°-50°	461.7	17.7
50°-60°	403.6	15.5
60°-70°	299.6	11.5
70°-80°	169.9	6.5
80°-90°	47.6	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°	759.1	29.2
0°-40°	1219.9	46.9
0°-60°	2085.2	80.1
0°-90°	2602.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2602.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	1006	1004	997	1004	1004	95
15°	958	956	948	953	950	270
25°	868	865	855	857	854	400
35°	748	743	734	730	728	468
45°	611	610	598	589	586	471
55°	463	462	450	441	439	415
65°	313	311	302	295	291	310
75°	166	163	160	158	153	176
85°	42	42	42	41	40	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1008.1	1008.1	1008.1	1008.1	1008.1
2.5°	1010.4	1008.9	1001.5	1008.9	1008.1
5°	1005.9	1004.4	997.0	1004.4	1003.7
7.5°	999.3	997.0	988.9	996.3	994.8
10°	988.2	986.7	977.8	983.7	983.7
12.5°	974.9	972.6	963.8	968.9	968.2
15°	957.8	956.4	947.5	952.7	950.4
17.5°	940.1	936.4	928.3	932.7	929.7
20°	918.6	915.7	905.3	909.0	907.5
22.5°	894.2	890.5	880.9	883.1	882.4
25°	867.6	864.6	855.0	857.2	853.6
27.5°	840.2	836.5	827.7	827.7	824.0
30°	811.4	807.7	797.3	797.3	791.4
32.5°	780.3	777.4	764.8	764.1	762.6
35°	747.8	743.3	734.5	730.0	727.8
37.5°	715.2	711.5	701.9	696.0	692.3
40°	680.5	678.3	667.2	662.0	656.8
42.5°	646.5	644.2	632.4	623.5	621.3
45°	610.9	609.5	597.6	588.8	586.5
47.5°	575.4	574.0	562.1	552.5	548.8
50°	537.0	537.0	525.9	516.3	514.1
52.5°	500.0	499.3	488.2	478.6	476.3
55°	463.0	462.3	450.4	440.8	438.6
57.5°	428.3	423.8	413.5	406.1	398.7
60°	388.3	386.1	377.2	367.6	363.9
62.5°	351.3	348.4	339.5	331.4	326.2
65°	312.9	310.7	301.8	295.1	291.4
67.5°	276.6	273.7	264.8	259.6	256.7
70°	237.4	235.2	228.6	221.9	221.2
72.5°	202.7	199.7	196.0	190.1	187.1
75°	165.7	162.7	160.5	157.5	153.1
77.5°	130.2	128.7	127.2	125.0	122.8
80°	96.9	96.9	96.2	94.7	93.9
82.5°	68.8	69.5	67.3	65.8	65.8
85°	42.2	42.2	42.2	40.7	39.9
87.5°	20.7	18.5	18.5	17.0	17.0
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	18.15	19.76	18.51	20.08	20.39	17.81	19.43	18.18	19.74	20.06
	3H	19.91	21.37	20.28	21.69	22.05	19.53	20.99	19.90	21.31	21.67
	4H	20.56	21.93	20.96	22.28	22.65	20.16	21.54	20.56	21.89	22.26
	6H	21.02	22.29	21.43	22.66	23.05	20.64	21.91	21.05	22.28	22.67
	8H	21.17	22.38	21.59	22.77	23.17	20.79	22.01	21.22	22.40	22.80
	12H	21.27	22.43	21.70	22.81	23.24	20.89	22.06	21.32	22.44	22.87
4H	2H	18.72	20.10	19.12	20.44	20.82	18.46	19.83	18.85	20.18	20.55
	3H	20.70	21.85	21.11	22.25	22.65	20.39	21.54	20.80	21.93	22.33
	4H	21.48	22.52	21.91	22.93	23.37	21.15	22.19	21.58	22.61	23.04
	6H	22.07	22.98	22.52	23.42	23.88	21.75	22.66	22.21	23.10	23.56
	8H	22.27	23.12	22.73	23.56	24.03	21.95	22.80	22.41	23.25	23.71
	12H	22.41	23.18	22.89	23.65	24.12	22.10	22.86	22.58	23.34	23.81
8H	4H	21.76	22.61	22.22	23.06	23.52	21.47	22.32	21.93	22.77	23.23
	6H	22.47	23.18	22.96	23.67	24.14	22.20	22.90	22.69	23.39	23.87
	8H	22.74	23.38	23.25	23.88	24.37	22.47	23.10	22.98	23.61	24.09
	12H	22.96	23.53	23.47	24.02	24.58	22.68	23.24	23.19	23.73	24.30
12H	4H	21.79	22.55	22.27	23.03	23.50	21.51	22.27	21.99	22.75	23.22
	6H	22.52	23.16	23.03	23.66	24.15	22.25	22.89	22.76	23.40	23.88
	8H	22.85	23.41	23.36	23.90	24.46	22.58	23.14	23.09	23.63	24.20