

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: P242773

Luminaire Tested: S125DRP-S850D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242773
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S850D830-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

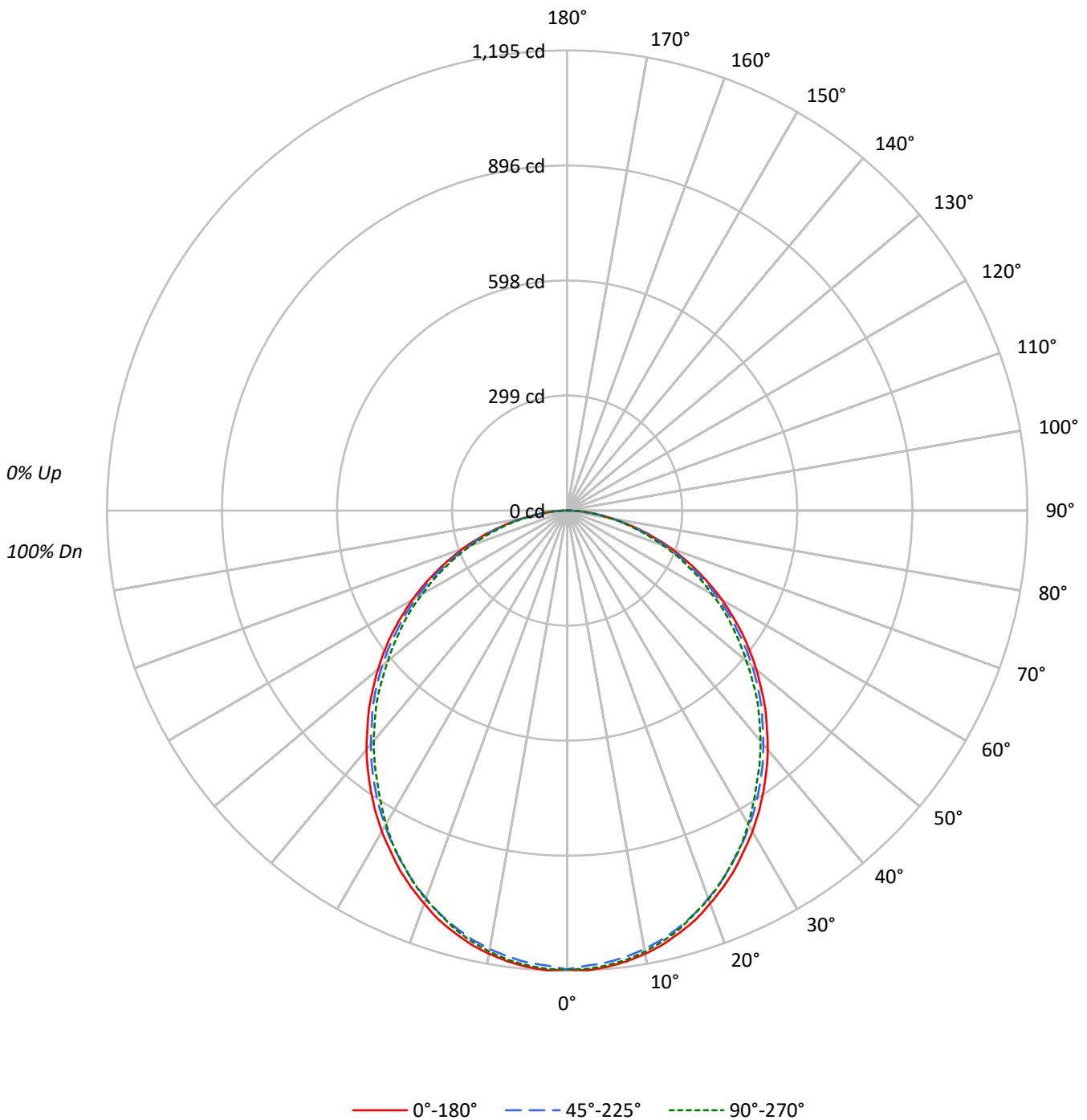
Lumens per Lamp: N/A
Luminaire Lumens: 3100.8 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): 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	94	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	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8468	8468	8468
5°	8486	8406	8459
10°	8435	8346	8394
15°	8343	8246	8281
20°	8212	8106	8120
25°	8072	7939	7931
30°	7897	7759	7720
35°	7712	7565	7458
40°	7521	7355	7250
45°	7313	7163	7020
50°	7086	6931	6722
55°	6867	6669	6482
60°	6606	6404	6176
65°	6293	6086	5881
70°	5993	5719	5523
75°	5462	5281	5099
80°	4862	4785	4666
85°	4224	4306	4077

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7313 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.4	3.6
10°-20°	317.5	10.2
20°-30°	468.8	15.1
30°-40°	547.0	17.6
40°-50°	549.3	17.7
50°-60°	482.2	15.6
60°-70°	359.2	11.6
70°-80°	205.1	6.6
80°-90°	59.2	1.9
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°	898.8	29.0
0°-40°	1445.7	46.6
0°-60°	2477.3	79.9
0°-90°	3100.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3100.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1191	1191	1191	1191	1191	
5°	1190	1188	1178	1187	1186	113
15°	1134	1131	1121	1125	1125	320
25°	1029	1024	1012	1014	1011	474
35°	889	885	872	867	860	556
45°	728	724	713	701	698	561
55°	554	551	538	530	523	495
65°	374	372	362	354	350	371
75°	199	197	192	190	186	212
85°	52	53	53	52	50	60
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1191.4	1191.4	1191.4	1191.4	1191.4
2.5°	1195.1	1192.3	1182.9	1192.3	1191.4
5°	1189.5	1187.6	1178.2	1186.7	1185.7
7.5°	1181.0	1179.1	1168.8	1177.2	1176.3
10°	1168.8	1166.9	1156.5	1164.0	1163.1
12.5°	1153.7	1149.9	1140.5	1146.1	1146.1
15°	1133.9	1131.1	1120.7	1125.4	1125.4
17.5°	1113.1	1108.4	1098.1	1103.7	1099.0
20°	1085.8	1083.9	1071.7	1078.3	1073.6
22.5°	1058.5	1054.7	1043.4	1047.2	1044.3
25°	1029.3	1024.5	1012.3	1014.2	1011.3
27.5°	995.3	992.5	980.2	981.2	978.4
30°	962.3	959.5	945.4	943.5	940.7
32.5°	926.5	921.8	909.6	905.8	900.1
35°	888.8	885.0	871.9	867.1	859.6
37.5°	850.2	845.5	833.2	826.6	821.9
40°	810.6	805.9	792.7	784.2	781.4
42.5°	768.2	764.4	751.2	743.7	739.0
45°	727.6	723.9	712.6	701.3	698.4
47.5°	683.3	684.3	670.1	658.8	652.2
50°	640.9	638.1	626.8	614.5	607.9
52.5°	597.6	595.7	583.4	573.1	565.5
55°	554.2	551.4	538.2	529.7	523.1
57.5°	508.0	507.1	495.8	484.5	481.6
60°	464.7	460.9	450.5	441.1	434.5
62.5°	419.4	416.6	408.1	397.8	393.0
65°	374.2	372.3	361.9	353.5	349.7
67.5°	329.9	326.1	318.6	311.0	309.2
70°	288.4	283.7	275.2	269.6	265.8
72.5°	243.2	240.3	235.6	229.0	225.3
75°	198.9	197.0	192.3	189.5	185.7
77.5°	157.4	156.5	153.6	151.7	148.9
80°	118.8	118.8	116.9	115.9	114.0
82.5°	84.8	82.9	82.9	81.1	81.1
85°	51.8	52.8	52.8	51.8	50.0
87.5°	25.4	25.4	24.5	24.5	22.6
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	18.77	20.39	19.14	20.70	21.02	18.44	20.06	18.81	20.38	20.69
	3H	20.54	22.00	20.92	22.33	22.69	20.18	21.64	20.55	21.97	22.33
	4H	21.20	22.58	21.60	22.92	23.30	20.82	22.20	21.22	22.55	22.92
	6H	21.67	22.95	22.09	23.32	23.71	21.31	22.58	21.72	22.95	23.34
	8H	21.83	23.05	22.26	23.44	23.84	21.47	22.69	21.89	23.08	23.48
	12H	21.94	23.11	22.37	23.49	23.92	21.58	22.75	22.01	23.13	23.56
4H	2H	19.35	20.73	19.75	21.07	21.45	19.09	20.47	19.49	20.82	21.19
	3H	21.35	22.50	21.75	22.90	23.30	21.04	22.20	21.45	22.59	22.99
	4H	22.13	23.18	22.56	23.59	24.03	21.82	22.86	22.25	23.27	23.71
	6H	22.74	23.65	23.19	24.09	24.55	22.43	23.34	22.89	23.78	24.24
	8H	22.94	23.80	23.41	24.24	24.71	22.64	23.49	23.10	23.94	24.40
	12H	23.10	23.86	23.58	24.34	24.81	22.80	23.56	23.28	24.04	24.51
8H	4H	22.42	23.27	22.88	23.71	24.18	22.14	22.99	22.60	23.44	23.90
	6H	23.15	23.86	23.64	24.35	24.82	22.88	23.59	23.37	24.08	24.55
	8H	23.43	24.06	23.94	24.57	25.06	23.16	23.80	23.67	24.31	24.79
	12H	23.66	24.22	24.16	24.71	25.27	23.40	23.96	23.90	24.45	25.01
12H	4H	22.45	23.22	22.93	23.69	24.16	22.18	22.94	22.66	23.42	23.89
	6H	23.20	23.84	23.71	24.34	24.83	22.94	23.58	23.45	24.09	24.57
	8H	23.54	24.10	24.04	24.59	25.15	23.28	23.85	23.79	24.34	24.90