

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: P242797

Luminaire Tested: S125DRP-S850D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242797
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-S850D940-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

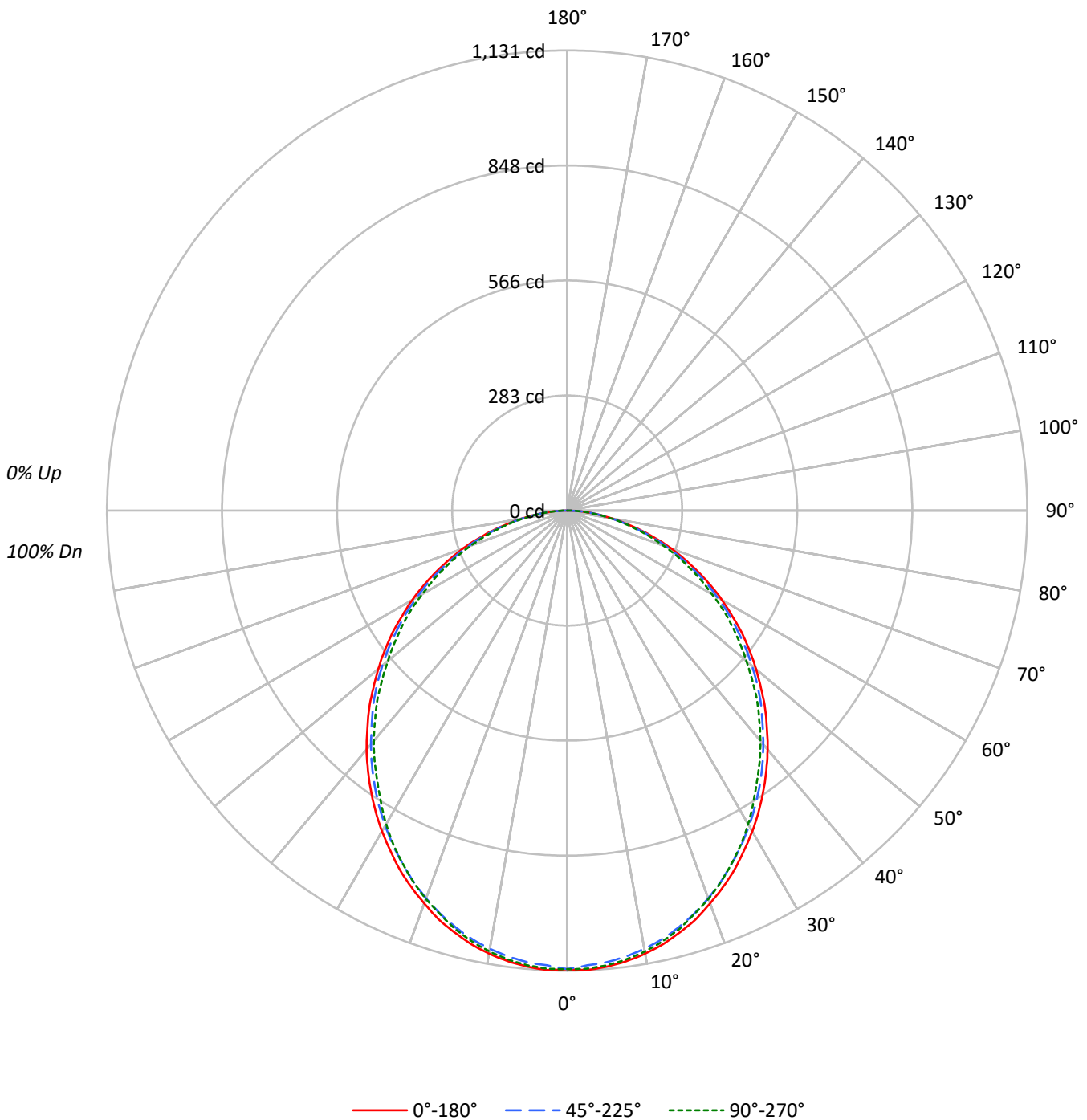
Lumens per Lamp: N/A
Luminaire Lumens: 2933.6 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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°	8011	8011	8011
5°	8028	7952	8003
10°	7980	7896	7942
15°	7893	7801	7834
20°	7770	7669	7682
25°	7636	7510	7503
30°	7472	7340	7303
35°	7296	7156	7056
40°	7115	6958	6858
45°	6919	6776	6642
50°	6705	6557	6360
55°	6497	6310	6132
60°	6249	6058	5844
65°	5953	5758	5563
70°	5671	5411	5226
75°	5168	4995	4825
80°	4600	4527	4416
85°	3996	4069	3857

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6919 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.4	3.6
10°-20°	300.4	10.2
20°-30°	443.5	15.1
30°-40°	517.5	17.6
40°-50°	519.7	17.7
50°-60°	456.2	15.6
60°-70°	339.8	11.6
70°-80°	194.1	6.6
80°-90°	56.0	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°	850.3	29.0
0°-40°	1367.8	46.6
0°-60°	2343.7	79.9
0°-90°	2933.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2933.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1127	1127	1127	1127	1127	
5°	1125	1124	1115	1123	1122	107
15°	1073	1070	1060	1065	1065	302
25°	974	969	958	960	957	448
35°	841	837	825	820	813	526
45°	688	685	674	663	661	530
55°	524	522	509	501	495	468
65°	354	352	342	334	331	351
75°	188	186	182	179	176	200
85°	49	50	50	49	47	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1127.1	1127.1	1127.1	1127.1	1127.1
2.5°	1130.7	1128.0	1119.1	1128.0	1127.1
5°	1125.3	1123.6	1114.6	1122.7	1121.8
7.5°	1117.3	1115.5	1105.7	1113.7	1112.9
10°	1105.7	1103.9	1094.1	1101.3	1100.4
12.5°	1091.5	1087.9	1079.0	1084.3	1084.3
15°	1072.7	1070.1	1060.2	1064.7	1064.7
17.5°	1053.1	1048.7	1038.8	1044.2	1039.7
20°	1027.3	1025.5	1013.9	1020.1	1015.7
22.5°	1001.4	997.8	987.1	990.7	988.0
25°	973.7	969.3	957.7	959.5	956.8
27.5°	941.6	939.0	927.4	928.3	925.6
30°	910.4	907.8	894.4	892.6	889.9
32.5°	876.6	872.1	860.5	856.9	851.6
35°	840.9	837.3	824.8	820.4	813.2
37.5°	804.3	799.9	788.3	782.0	777.6
40°	766.9	762.4	749.9	741.9	739.2
42.5°	726.7	723.2	710.7	703.6	699.1
45°	688.4	684.8	674.1	663.4	660.8
47.5°	646.5	647.4	634.0	623.3	617.1
50°	606.4	603.7	593.0	581.4	575.2
52.5°	565.3	563.6	552.0	542.2	535.0
55°	524.3	521.7	509.2	501.1	494.9
57.5°	480.6	479.7	469.0	458.3	455.7
60°	439.6	436.0	426.2	417.3	411.1
62.5°	396.8	394.1	386.1	376.3	371.8
65°	354.0	352.2	342.4	334.4	330.8
67.5°	312.1	308.5	301.4	294.3	292.5
70°	272.9	268.4	260.4	255.0	251.5
72.5°	230.1	227.4	222.9	216.7	213.1
75°	188.2	186.4	181.9	179.2	175.7
77.5°	148.9	148.0	145.3	143.6	140.9
80°	112.4	112.4	110.6	109.7	107.9
82.5°	80.3	78.5	78.5	76.7	76.7
85°	49.0	49.9	49.9	49.0	47.3
87.5°	24.1	24.1	23.2	23.2	21.4
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	18.58	20.20	18.94	20.51	20.82	18.25	19.87	18.62	20.18	20.50
	3H	20.35	21.81	20.72	22.14	22.50	19.98	21.45	20.36	21.77	22.13
	4H	21.01	22.38	21.40	22.73	23.11	20.63	22.01	21.03	22.35	22.73
	6H	21.48	22.76	21.89	23.12	23.51	21.12	22.39	21.53	22.76	23.15
	8H	21.64	22.86	22.06	23.25	23.65	21.28	22.50	21.70	22.88	23.28
	12H	21.75	22.91	22.17	23.29	23.72	21.39	22.56	21.82	22.94	23.37
4H	2H	19.16	20.53	19.55	20.88	21.26	18.90	20.27	19.30	20.62	21.00
	3H	21.15	22.31	21.56	22.70	23.10	20.85	22.00	21.26	22.40	22.80
	4H	21.94	22.98	22.37	23.40	23.83	21.62	22.67	22.06	23.08	23.52
	6H	22.55	23.46	23.00	23.90	24.36	22.24	23.15	22.69	23.59	24.05
	8H	22.75	23.61	23.21	24.05	24.51	22.45	23.30	22.91	23.74	24.21
	12H	22.91	23.67	23.39	24.15	24.62	22.60	23.37	23.08	23.85	24.32
8H	4H	22.23	23.08	22.69	23.52	23.99	21.95	22.80	22.41	23.24	23.71
	6H	22.96	23.67	23.45	24.15	24.63	22.69	23.40	23.18	23.89	24.36
	8H	23.23	23.87	23.74	24.38	24.86	22.97	23.61	23.48	24.11	24.60
	12H	23.46	24.03	23.97	24.52	25.08	23.20	23.77	23.71	24.26	24.82
12H	4H	22.26	23.02	22.74	23.50	23.97	21.98	22.75	22.46	23.23	23.70
	6H	23.01	23.65	23.52	24.15	24.64	22.75	23.39	23.26	23.89	24.38
	8H	23.34	23.91	23.85	24.40	24.96	23.09	23.66	23.60	24.15	24.71