

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: P243642

Luminaire Tested: S125DRP-H850D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243642
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-H850D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

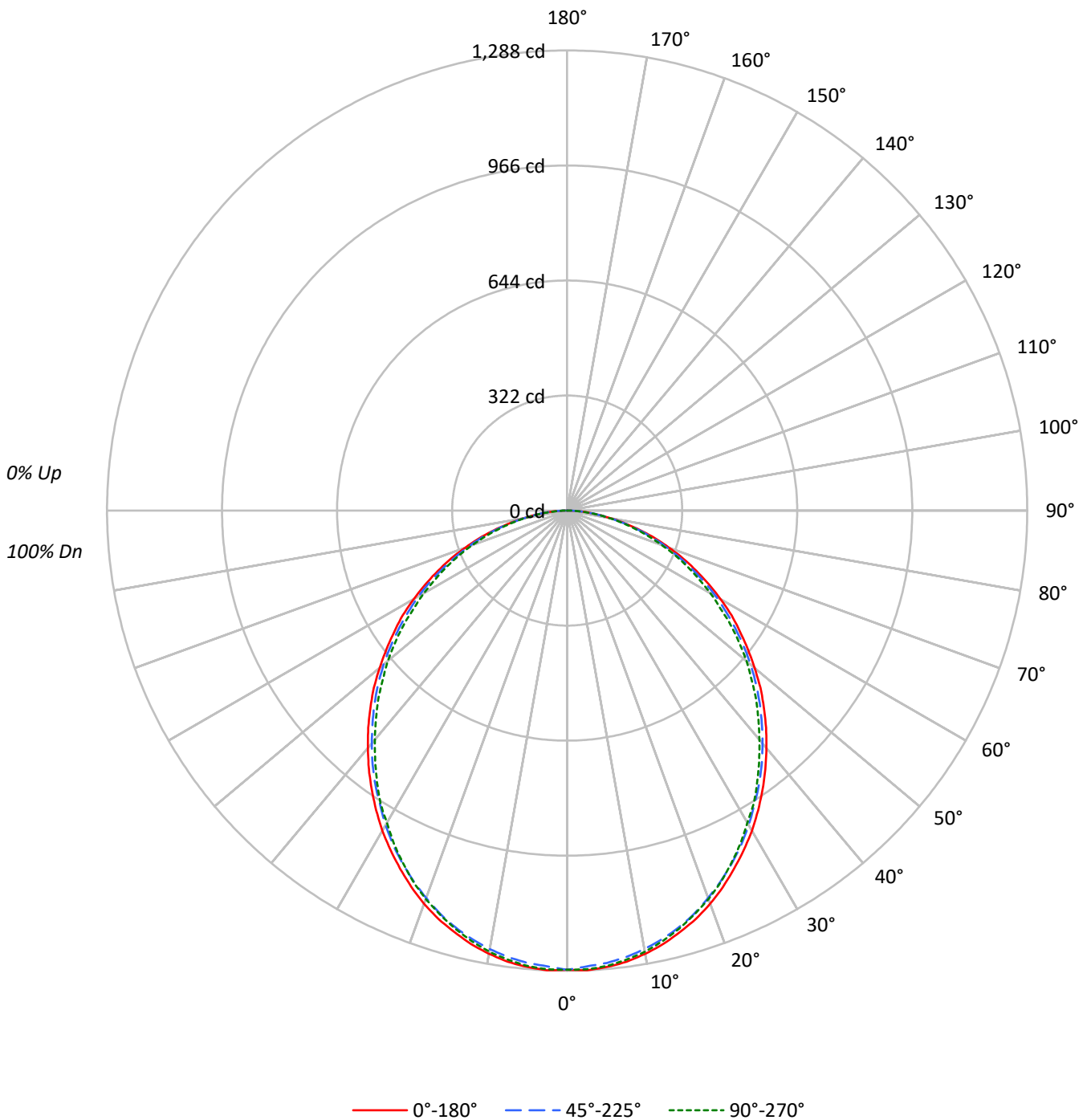
Lumens per Lamp: N/A
Luminaire Lumens: 3317.4 lumens
Efficiency: N/A
Efficacy: 140.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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	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°	9134	9134	9134
5°	9149	9068	9129
10°	9091	8996	9050
15°	8984	8887	8915
20°	8858	8729	8750
25°	8673	8548	8533
30°	8489	8341	8280
35°	8271	8124	8050
40°	8049	7891	7768
45°	7828	7658	7515
50°	7569	7413	7246
55°	7315	7115	6928
60°	7036	6836	6594
65°	6707	6470	6248
70°	6290	6055	5858
75°	5800	5618	5360
80°	5055	5018	4899
85°	4379	4379	4151

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7828 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	3.7
10°-20°	342.1	10.3
20°-30°	504.4	15.2
30°-40°	587.4	17.7
40°-50°	588.6	17.7
50°-60°	514.5	15.5
60°-70°	381.9	11.5
70°-80°	216.6	6.5
80°-90°	60.7	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°	967.7	29.2
0°-40°	1555.1	46.9
0°-60°	2658.2	80.1
0°-90°	3317.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3317.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1285	1285	1285	1285	1285	
5°	1282	1280	1271	1280	1280	122
15°	1221	1219	1208	1214	1212	344
25°	1106	1102	1090	1093	1088	510
35°	953	948	936	931	928	596
45°	779	777	762	750	748	601
55°	590	589	574	562	559	528
65°	399	396	385	376	372	395
75°	211	207	205	201	195	224
85°	54	54	54	52	51	62
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1285.2	1285.2	1285.2	1285.2	1285.2
2.5°	1288.0	1286.1	1276.7	1286.1	1285.2
5°	1282.3	1280.4	1271.0	1280.4	1279.5
7.5°	1273.8	1271.0	1260.6	1270.1	1268.2
10°	1259.7	1257.8	1246.5	1254.0	1254.0
12.5°	1242.7	1239.9	1228.6	1235.2	1234.2
15°	1221.0	1219.2	1207.8	1214.4	1211.6
17.5°	1198.4	1193.7	1183.3	1189.0	1185.2
20°	1171.1	1167.3	1154.1	1158.8	1156.9
22.5°	1140.0	1135.2	1123.0	1125.8	1124.9
25°	1106.0	1102.2	1090.0	1092.8	1088.1
27.5°	1071.1	1066.4	1055.1	1055.1	1050.4
30°	1034.4	1029.6	1016.4	1016.4	1008.9
32.5°	994.8	991.0	975.0	974.0	972.1
35°	953.3	947.6	936.3	930.6	927.8
37.5°	911.8	907.1	894.8	887.3	882.5
40°	867.5	864.6	850.5	843.9	837.3
42.5°	824.1	821.3	806.2	794.9	792.0
45°	778.8	776.9	761.9	750.5	747.7
47.5°	733.6	731.7	716.6	704.3	699.6
50°	684.5	684.5	670.4	658.1	655.3
52.5°	637.4	636.5	622.3	610.1	607.2
55°	590.3	589.3	574.2	562.0	559.1
57.5°	545.9	540.3	527.1	517.6	508.2
60°	495.0	492.2	480.9	468.6	463.9
62.5°	447.9	444.1	432.8	422.4	415.8
65°	398.8	396.0	384.7	376.2	371.5
67.5°	352.6	348.9	337.6	331.0	327.2
70°	302.7	299.8	291.4	282.9	281.9
72.5°	258.4	254.6	249.9	242.3	238.6
75°	211.2	207.4	204.6	200.8	195.2
77.5°	165.9	164.1	162.2	159.3	156.5
80°	123.5	123.5	122.6	120.7	119.7
82.5°	87.7	88.6	85.8	83.9	83.9
85°	53.7	53.7	53.7	51.9	50.9
87.5°	26.4	23.6	23.6	21.7	21.7
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	18.99	20.61	19.36	20.92	21.24	18.66	20.27	19.02	20.59	20.90
	3H	20.75	22.21	21.13	22.54	22.90	20.37	21.83	20.75	22.16	22.52
	4H	21.40	22.77	21.80	23.12	23.50	21.01	22.38	21.41	22.73	23.10
	6H	21.86	23.14	22.27	23.50	23.89	21.48	22.75	21.89	23.12	23.51
	8H	22.01	23.23	22.44	23.62	24.01	21.64	22.85	22.06	23.24	23.64
	12H	22.11	23.28	22.54	23.66	24.09	21.74	22.90	22.17	23.28	23.71
4H	2H	19.57	20.94	19.96	21.29	21.66	19.30	20.67	19.70	21.02	21.40
	3H	21.55	22.70	21.96	23.10	23.50	21.23	22.38	21.64	22.78	23.18
	4H	22.32	23.36	22.75	23.78	24.21	22.00	23.04	22.43	23.45	23.89
	6H	22.91	23.82	23.37	24.26	24.72	22.60	23.51	23.05	23.95	24.40
	8H	23.11	23.96	23.57	24.40	24.87	22.80	23.65	23.26	24.09	24.56
	12H	23.26	24.02	23.74	24.50	24.97	22.94	23.71	23.42	24.18	24.65
8H	4H	22.61	23.46	23.07	23.90	24.36	22.32	23.17	22.78	23.61	24.08
	6H	23.31	24.02	23.81	24.51	24.98	23.04	23.75	23.53	24.23	24.71
	8H	23.59	24.22	24.10	24.73	25.21	23.31	23.94	23.82	24.45	24.94
	12H	23.81	24.37	24.31	24.86	25.42	23.53	24.09	24.03	24.58	25.14
12H	4H	22.63	23.40	23.11	23.87	24.34	22.35	23.12	22.83	23.59	24.06
	6H	23.36	24.00	23.87	24.51	24.99	23.10	23.73	23.61	24.24	24.72
	8H	23.69	24.25	24.20	24.75	25.31	23.43	23.99	23.93	24.48	25.04