

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: P243700

Luminaire Tested: S125DRP-H375D830-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243700
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-H375D830-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

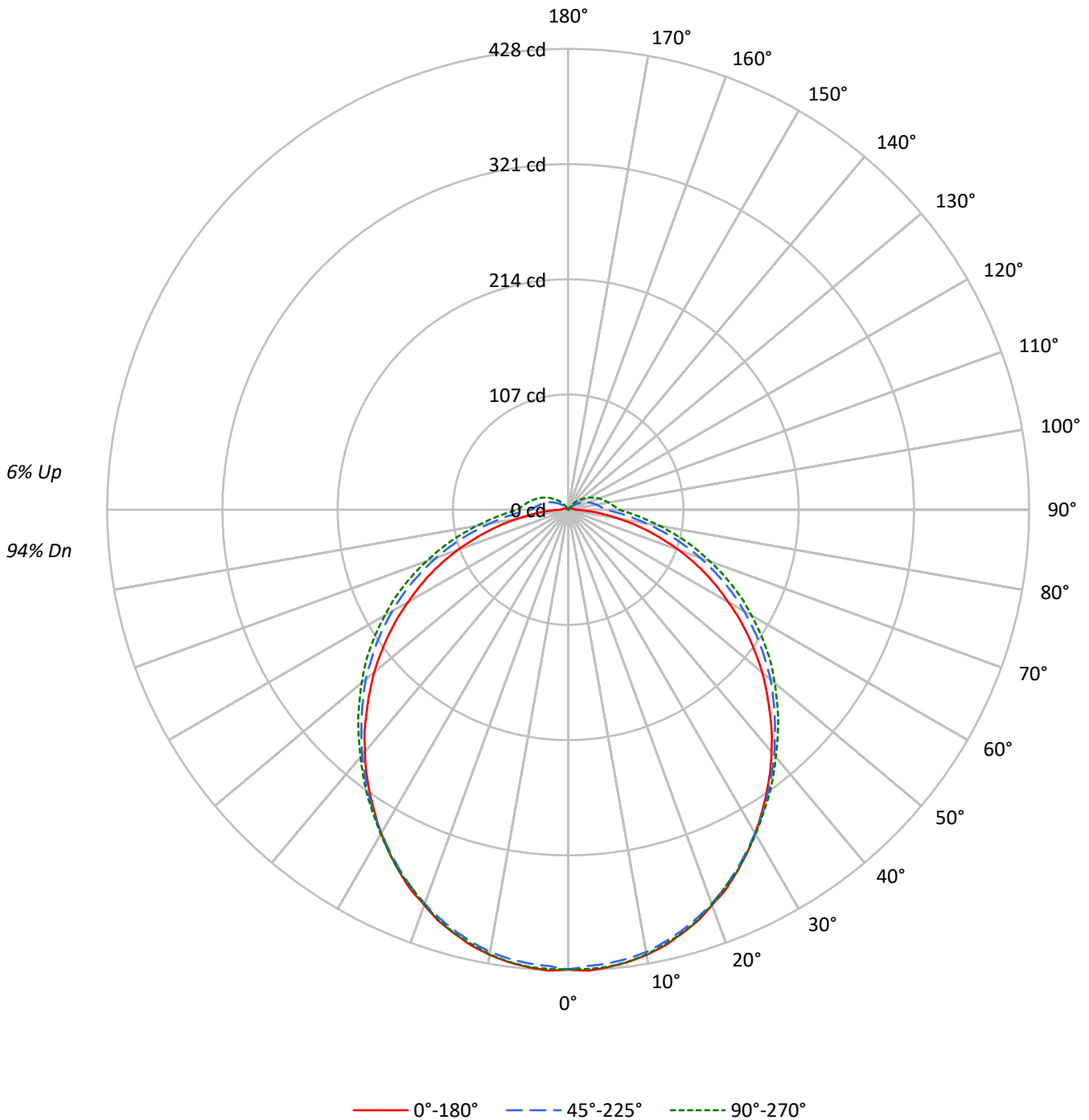
Lumens per Lamp: N/A
Luminaire Lumens: 1325.6 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 11.2
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			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	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°	3034	3034	3034
5°	3037	2975	2984
10°	3018	2925	2917
15°	2982	2855	2834
20°	2931	2777	2739
25°	2880	2688	2646
30°	2814	2597	2543
35°	2746	2509	2451
40°	2676	2423	2360
45°	2602	2337	2285
50°	2536	2265	2206
55°	2453	2178	2133
60°	2352	2082	2040
65°	2272	1982	1949
70°	2137	1858	1831
75°	1955	1713	1725
80°	1740	1556	1593
85°	1551	1455	1516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2602 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	3.0
10°-20°	114.8	8.7
20°-30°	170.8	12.9
30°-40°	202.4	15.3
40°-50°	209.4	15.8
50°-60°	193.2	14.6
60°-70°	156.1	11.8
70°-80°	104.3	7.9
80°-90°	53.8	4.1
90°-100°	30.2	2.3
100°-110°	22.4	1.7
110°-120°	14.9	1.1
120°-130°	8.3	0.6
130°-140°	3.7	0.3
140°-150°	0.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	326.0	24.6
0°-40°	528.4	39.9
0°-60°	931.0	70.2
0°-90°	1245.2	93.9
90°-120°	67.5	5.1
90°-150°	80.4	6.1
90°-180°	80.0	6.0
0°-180°	1325.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	426	426	423	426	426	41
15°	408	409	405	408	407	115
25°	371	372	369	371	371	171
35°	321	324	323	324	325	201
45°	264	269	271	275	276	204
55°	204	210	217	222	224	182
65°	141	150	160	167	169	139
75°	77	88	101	110	113	82
85°	24	37	52	61	64	24
90°	7	20	34	44	47	5
95°	6	17	30	40	42	4
105°	4	11	23	32	34	4
115°	3	6	16	24	26	3
125°	2	2	10	15	18	2
135°	1	1	4	9	11	1
145°	0	0	0	2	4	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°	426.9	426.9	426.9	426.9	426.9
2.5°	428.5	427.3	424.2	427.3	426.9
5°	426.5	426.1	423.0	426.1	426.1
7.5°	423.8	423.4	420.6	423.8	423.4
10°	419.8	419.8	417.1	419.4	419.4
12.5°	414.7	414.7	411.5	414.3	413.5
15°	407.6	408.8	405.2	407.6	407.2
17.5°	400.5	400.5	397.7	399.7	399.7
20°	390.6	392.2	389.4	391.4	390.2
22.5°	382.0	382.7	380.0	382.0	380.0
25°	370.9	372.5	369.3	371.3	370.9
27.5°	359.5	360.6	358.3	360.6	359.5
30°	347.2	348.4	346.8	348.4	348.0
32.5°	334.2	336.6	335.4	336.6	336.2
35°	321.2	323.6	322.8	324.3	324.7
37.5°	307.8	310.1	310.1	312.1	312.5
40°	293.6	296.7	297.5	300.3	299.9
42.5°	279.8	282.9	284.1	287.6	287.6
45°	264.4	268.7	271.1	275.4	275.8
47.5°	249.8	254.5	258.1	262.0	262.8
50°	235.2	239.5	245.4	249.4	250.2
52.5°	219.4	224.9	230.8	236.4	237.9
55°	204.0	210.3	217.4	222.5	224.5
57.5°	188.2	194.9	202.8	209.1	210.7
60°	171.6	179.5	188.6	194.9	196.5
62.5°	156.3	164.9	174.4	181.1	183.5
65°	141.3	149.5	159.8	166.9	168.9
67.5°	125.1	134.2	144.8	152.7	154.7
70°	108.9	118.8	130.2	137.7	139.7
72.5°	92.3	103.4	115.6	123.9	126.3
75°	76.9	88.4	101.0	109.7	112.8
77.5°	62.3	74.2	86.8	95.9	98.6
80°	47.7	60.0	73.8	83.3	86.0
82.5°	34.7	47.7	61.9	71.4	74.2
85°	23.7	37.1	51.7	60.8	63.9
87.5°	14.6	27.6	42.6	51.7	54.8
90°	6.7	19.7	34.3	43.8	47.0
92.5°	5.9	18.2	32.4	41.8	44.6
95°	5.5	16.6	30.4	39.5	42.2
97.5°	5.1	15.0	28.4	37.5	40.2
100°	4.7	13.4	26.8	35.5	38.3
102.5°	4.3	12.2	24.9	33.5	35.9
105°	3.9	10.7	23.3	31.6	34.3
107.5°	3.6	9.1	21.7	29.6	32.4
110°	3.2	7.9	19.7	27.6	30.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.8	6.7	18.2	25.6	28.4
115°	2.8	5.5	16.2	23.7	26.4
117.5°	2.4	4.3	14.2	21.7	24.5
120°	2.0	3.2	12.6	19.7	22.5
122.5°	2.0	2.4	11.0	17.8	20.5
125°	1.6	1.6	9.5	15.4	18.2
127.5°	1.6	1.2	7.9	13.8	15.8
130°	1.2	0.8	6.7	12.2	14.2
132.5°	1.2	0.8	5.1	10.7	12.6
135°	0.8	0.8	3.6	9.1	10.7
137.5°	0.8	0.4	2.4	7.1	9.1
140°	0.4	0.4	0.8	5.5	7.1
142.5°	0.4	0.4	0.4	3.9	5.5
145°	0.4	0.0	0.0	2.4	3.6
147.5°	0.4	0.0	0.0	0.8	2.0
150°	0.0	0.0	0.0	0.0	0.4
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	13.77	15.30	14.23	15.74	16.20	14.86	16.39	15.32	16.83	17.29
	3H	15.42	16.81	15.89	17.26	17.77	17.02	18.42	17.49	18.87	19.37
	4H	15.99	17.31	16.48	17.78	18.29	17.99	19.31	18.48	19.77	20.29
	6H	16.38	17.60	16.88	18.08	18.62	18.89	20.12	19.39	20.60	21.13
	8H	16.48	17.65	17.00	18.16	18.70	19.32	20.49	19.84	21.00	21.54
	12H	16.54	17.67	17.07	18.17	18.74	19.77	20.90	20.29	21.39	21.96
4H	2H	14.54	15.85	15.03	16.32	16.84	15.39	16.71	15.88	17.17	17.69
	3H	16.42	17.53	16.92	18.05	18.59	17.77	18.89	18.27	19.40	19.94
	4H	17.12	18.14	17.64	18.66	19.24	18.88	19.90	19.40	20.42	21.00
	6H	17.63	18.53	18.18	19.08	19.67	19.95	20.85	20.49	21.39	21.98
	8H	17.79	18.63	18.34	19.18	19.78	20.46	21.31	21.01	21.85	22.46
	12H	17.89	18.65	18.46	19.23	19.84	21.02	21.78	21.59	22.36	22.96
8H	4H	17.60	18.44	18.15	18.99	19.59	19.14	19.98	19.69	20.53	21.13
	6H	18.27	18.98	18.85	19.57	20.18	20.36	21.07	20.94	21.66	22.27
	8H	18.51	19.15	19.11	19.75	20.37	20.99	21.63	21.59	22.24	22.86
	12H	18.70	19.26	19.29	19.85	20.54	21.70	22.27	22.30	22.86	23.55
12H	4H	17.70	18.46	18.27	19.04	19.65	19.15	19.92	19.73	20.49	21.10
	6H	18.43	19.07	19.03	19.67	20.29	20.41	21.05	21.00	21.65	22.27
	8H	18.75	19.32	19.35	19.91	20.60	21.11	21.68	21.71	22.27	22.96