

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: P243724

Luminaire Tested: S125DRP-H375D940-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243724
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-H375D940-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

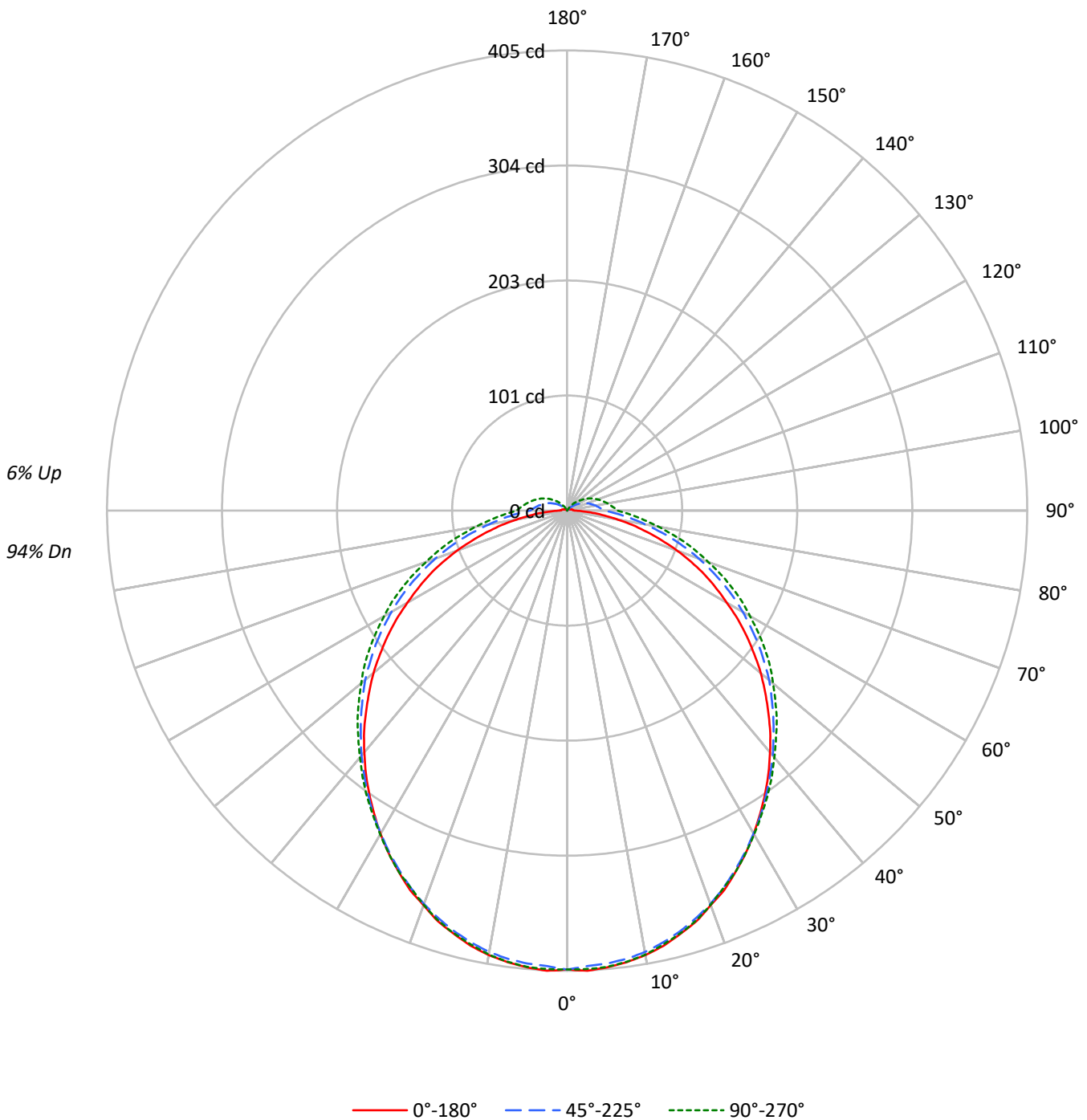
Lumens per Lamp: N/A
Luminaire Lumens: 1254.2 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

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										
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	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°	2871	2871	2871
5°	2873	2814	2824
10°	2856	2767	2760
15°	2821	2701	2681
20°	2774	2628	2591
25°	2724	2543	2503
30°	2663	2457	2406
35°	2598	2374	2319
40°	2531	2292	2233
45°	2461	2211	2162
50°	2399	2143	2087
55°	2320	2060	2018
60°	2226	1970	1930
65°	2148	1875	1844
70°	2021	1758	1731
75°	1851	1621	1633
80°	1649	1472	1508
85°	1466	1376	1435

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2461 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.2	3.0
10°-20°	108.6	8.7
20°-30°	161.6	12.9
30°-40°	191.5	15.3
40°-50°	198.1	15.8
50°-60°	182.7	14.6
60°-70°	147.7	11.8
70°-80°	98.7	7.9
80°-90°	50.9	4.1
90°-100°	28.6	2.3
100°-110°	21.2	1.7
110°-120°	14.1	1.1
120°-130°	7.9	0.6
130°-140°	3.5	0.3
140°-150°	0.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	308.5	24.6
0°-40°	500.0	39.9
0°-60°	880.8	70.2
0°-90°	1178.1	93.9
90°-120°	63.8	5.1
90°-150°	76.0	6.1
90°-180°	76.0	6.1
0°-180°	1254.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	404	403	400	403	403	38
15°	386	387	383	386	385	109
25°	351	352	349	351	351	162
35°	304	306	305	307	307	190
45°	250	254	256	261	261	193
55°	193	199	206	210	212	172
65°	134	142	151	158	160	132
75°	73	84	96	104	107	77
85°	22	35	49	58	60	23
90°	6	19	32	41	44	4
95°	5	16	29	37	40	4
105°	4	10	22	30	32	4
115°	3	5	15	22	25	2
125°	2	2	9	15	17	1
135°	1	1	3	9	10	1
145°	0	0	0	2	3	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°	403.9	403.9	403.9	403.9	403.9
2.5°	405.4	404.3	401.3	404.3	403.9
5°	403.5	403.2	400.2	403.2	403.2
7.5°	400.9	400.5	397.9	400.9	400.5
10°	397.2	397.2	394.6	396.8	396.8
12.5°	392.3	392.3	389.4	392.0	391.2
15°	385.6	386.7	383.4	385.6	385.2
17.5°	378.9	378.9	376.3	378.2	378.2
20°	369.6	371.1	368.4	370.3	369.2
22.5°	361.4	362.1	359.5	361.4	359.5
25°	350.9	352.4	349.4	351.3	350.9
27.5°	340.1	341.2	339.0	341.2	340.1
30°	328.5	329.6	328.1	329.6	329.2
32.5°	316.2	318.4	317.3	318.4	318.1
35°	303.9	306.1	305.4	306.9	307.2
37.5°	291.2	293.4	293.4	295.3	295.7
40°	277.7	280.7	281.5	284.1	283.7
42.5°	264.7	267.7	268.8	272.1	272.1
45°	250.1	254.2	256.5	260.6	260.9
47.5°	236.3	240.8	244.1	247.9	248.6
50°	222.5	226.6	232.2	235.9	236.7
52.5°	207.6	212.8	218.4	223.6	225.1
55°	193.0	199.0	205.7	210.5	212.4
57.5°	178.1	184.4	191.9	197.8	199.3
60°	162.4	169.9	178.4	184.4	185.9
62.5°	147.8	156.0	165.0	171.3	173.6
65°	133.6	141.5	151.2	157.9	159.8
67.5°	118.3	126.9	137.0	144.5	146.3
70°	103.0	112.4	123.2	130.3	132.1
72.5°	87.4	97.8	109.4	117.2	119.5
75°	72.8	83.6	95.6	103.8	106.8
77.5°	59.0	70.2	82.1	90.7	93.3
80°	45.2	56.7	69.8	78.8	81.4
82.5°	32.9	45.2	58.6	67.6	70.2
85°	22.4	35.1	48.9	57.5	60.5
87.5°	13.8	26.1	40.3	48.9	51.9
90°	6.3	18.7	32.5	41.4	44.4
92.5°	5.6	17.2	30.6	39.6	42.2
95°	5.2	15.7	28.7	37.3	39.9
97.5°	4.9	14.2	26.9	35.5	38.1
100°	4.5	12.7	25.4	33.6	36.2
102.5°	4.1	11.6	23.5	31.7	34.0
105°	3.7	10.1	22.0	29.9	32.5
107.5°	3.4	8.6	20.5	28.0	30.6
110°	3.0	7.5	18.7	26.1	28.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.6	6.3	17.2	24.3	26.9
115°	2.6	5.2	15.3	22.4	25.0
117.5°	2.2	4.1	13.4	20.5	23.1
120°	1.9	3.0	11.9	18.7	21.3
122.5°	1.9	2.2	10.5	16.8	19.4
125°	1.5	1.5	9.0	14.6	17.2
127.5°	1.5	1.1	7.5	13.1	14.9
130°	1.1	0.7	6.3	11.6	13.4
132.5°	1.1	0.7	4.9	10.1	11.9
135°	0.7	0.7	3.4	8.6	10.1
137.5°	0.7	0.4	2.2	6.7	8.6
140°	0.4	0.4	0.7	5.2	6.7
142.5°	0.4	0.4	0.4	3.7	5.2
145°	0.4	0.0	0.0	2.2	3.4
147.5°	0.4	0.0	0.0	0.7	1.9
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	13.58	15.11	14.04	15.55	16.01	14.67	16.20	15.12	16.64	17.10
	3H	15.23	16.62	15.70	17.07	17.58	16.83	18.22	17.30	18.67	19.18
	4H	15.80	17.12	16.29	17.58	18.10	17.79	19.11	18.28	19.58	20.10
	6H	16.18	17.41	16.69	17.89	18.42	18.70	19.92	19.20	20.40	20.94
	8H	16.29	17.46	16.81	17.97	18.51	19.13	20.30	19.64	20.80	21.35
	12H	16.35	17.48	16.88	17.98	18.55	19.58	20.70	20.10	21.20	21.77
4H	2H	14.34	15.66	14.83	16.13	16.65	15.19	16.51	15.68	16.98	17.50
	3H	16.22	17.34	16.73	17.85	18.39	17.58	18.69	18.08	19.20	19.75
	4H	16.93	17.95	17.45	18.47	19.04	18.69	19.71	19.21	20.23	20.80
	6H	17.44	18.34	17.99	18.89	19.48	19.76	20.65	20.30	21.20	21.79
	8H	17.59	18.44	18.14	18.99	19.59	20.27	21.11	20.82	21.66	22.26
	12H	17.70	18.46	18.27	19.04	19.64	20.82	21.59	21.39	22.16	22.77
8H	4H	17.41	18.25	17.96	18.80	19.40	18.94	19.79	19.49	20.33	20.94
	6H	18.08	18.79	18.66	19.38	19.99	20.17	20.88	20.75	21.47	22.08
	8H	18.32	18.96	18.91	19.56	20.18	20.80	21.44	21.40	22.04	22.67
	12H	18.50	19.07	19.10	19.66	20.35	21.51	22.08	22.11	22.67	23.36
12H	4H	17.51	18.27	18.08	18.85	19.46	18.96	19.72	19.53	20.30	20.91
	6H	18.24	18.88	18.83	19.48	20.10	20.22	20.86	20.81	21.46	22.08
	8H	18.56	19.13	19.15	19.72	20.41	20.92	21.49	21.51	22.08	22.77