

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: P242776

Luminaire Tested: S125DRP-S375D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242776  
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-S375D835-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

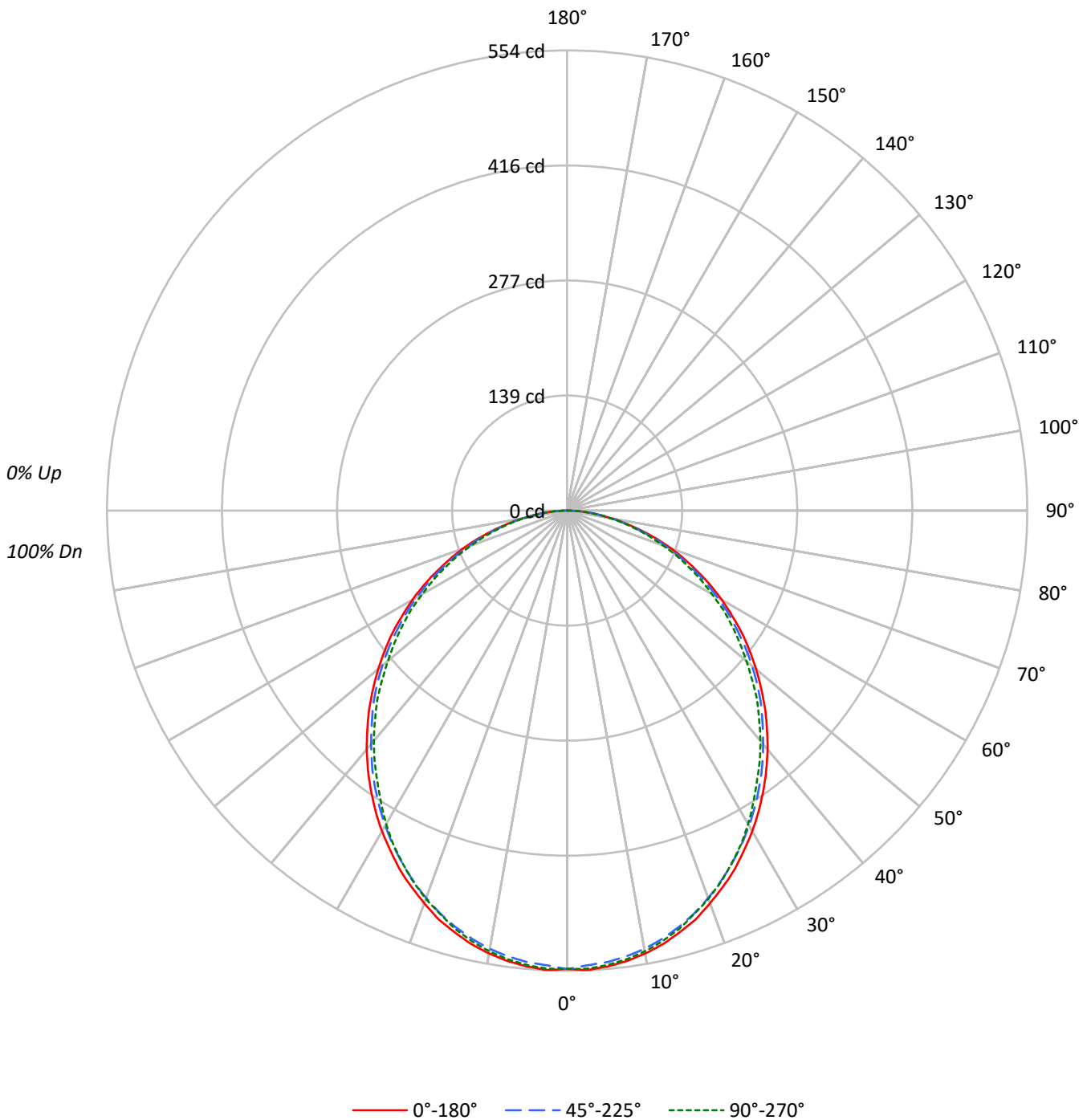
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1436.5 lumens  
Efficiency: N/A  
Efficacy: 123.8 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): 11.6  
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°	3923	3923	3923
5°	3931	3894	3919
10°	3907	3866	3889
15°	3865	3820	3836
20°	3804	3755	3761
25°	3739	3677	3674
30°	3659	3594	3577
35°	3572	3504	3455
40°	3484	3407	3359
45°	3388	3318	3252
50°	3283	3211	3114
55°	3181	3089	3002
60°	3060	2967	2861
65°	2914	2820	2724
70°	2776	2650	2558
75°	2529	2447	2362
80°	2251	2214	2161
85°	1957	1998	1884

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3388 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.1	3.6
10°-20°	147.1	10.2
20°-30°	217.2	15.1
30°-40°	253.4	17.6
40°-50°	254.5	17.7
50°-60°	223.4	15.6
60°-70°	166.4	11.6
70°-80°	95.0	6.6
80°-90°	27.4	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°	416.3	29.0
0°-40°	669.7	46.6
0°-60°	1147.6	79.9
0°-90°	1436.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1436.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	551	550	546	550	549	52
15°	525	524	519	521	521	148
25°	477	475	469	470	468	219
35°	412	410	404	402	398	258
45°	337	335	330	325	324	260
55°	257	255	249	245	242	229
65°	173	172	168	164	162	172
75°	92	91	89	88	86	98
85°	24	24	24	24	23	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	551.9	551.9	551.9	551.9	551.9
2.5°	553.6	552.3	548.0	552.3	551.9
5°	551.0	550.1	545.8	549.7	549.3
7.5°	547.1	546.2	541.4	545.3	544.9
10°	541.4	540.5	535.7	539.2	538.8
12.5°	534.4	532.7	528.3	530.9	530.9
15°	525.3	523.9	519.1	521.3	521.3
17.5°	515.7	513.5	508.7	511.3	509.1
20°	503.0	502.1	496.4	499.5	497.3
22.5°	490.3	488.6	483.3	485.1	483.8
25°	476.8	474.6	468.9	469.8	468.5
27.5°	461.1	459.8	454.1	454.5	453.2
30°	445.8	444.5	437.9	437.1	435.8
32.5°	429.2	427.0	421.3	419.6	417.0
35°	411.7	410.0	403.9	401.7	398.2
37.5°	393.8	391.7	386.0	382.9	380.7
40°	375.5	373.3	367.2	363.3	362.0
42.5°	355.8	354.1	348.0	344.5	342.3
45°	337.1	335.3	330.1	324.8	323.5
47.5°	316.6	317.0	310.4	305.2	302.1
50°	296.9	295.6	290.4	284.7	281.6
52.5°	276.8	275.9	270.3	265.5	262.0
55°	256.7	255.4	249.3	245.4	242.3
57.5°	235.3	234.9	229.7	224.4	223.1
60°	215.3	213.5	208.7	204.3	201.3
62.5°	194.3	193.0	189.1	184.3	182.1
65°	173.3	172.5	167.7	163.7	162.0
67.5°	152.8	151.1	147.6	144.1	143.2
70°	133.6	131.4	127.5	124.9	123.1
72.5°	112.6	111.3	109.2	106.1	104.4
75°	92.1	91.3	89.1	87.8	86.0
77.5°	72.9	72.5	71.2	70.3	69.0
80°	55.0	55.0	54.1	53.7	52.8
82.5°	39.3	38.4	38.4	37.5	37.5
85°	24.0	24.5	24.5	24.0	23.1
87.5°	11.8	11.8	11.4	11.4	10.5
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	16.10	17.72	16.46	18.03	18.34	15.77	17.39	16.13	17.70	18.02
	3H	17.87	19.33	18.24	19.66	20.02	17.50	18.96	17.88	19.29	19.65
	4H	18.52	19.90	18.92	20.25	20.62	18.15	19.53	18.55	19.87	20.25
	6H	19.00	20.28	19.41	20.64	21.03	18.63	19.91	19.05	20.28	20.67
	8H	19.16	20.38	19.58	20.76	21.16	18.80	20.01	19.22	20.40	20.80
	12H	19.26	20.43	19.69	20.81	21.24	18.91	20.07	19.33	20.45	20.88
4H	2H	16.68	18.05	17.07	18.40	18.78	16.42	17.79	16.81	18.14	18.52
	3H	18.67	19.83	19.08	20.22	20.62	18.37	19.52	18.78	19.92	20.32
	4H	19.46	20.50	19.89	20.92	21.35	19.14	20.19	19.57	20.60	21.04
	6H	20.07	20.98	20.52	21.42	21.87	19.76	20.67	20.21	21.11	21.57
	8H	20.27	21.12	20.73	21.57	22.03	19.97	20.82	20.43	21.26	21.73
	12H	20.42	21.19	20.90	21.67	22.14	20.12	20.89	20.60	21.36	21.83
8H	4H	19.74	20.60	20.21	21.04	21.51	19.47	20.32	19.93	20.76	21.23
	6H	20.47	21.18	20.97	21.67	22.15	20.21	20.92	20.70	21.40	21.88
	8H	20.75	21.39	21.26	21.90	22.38	20.49	21.13	21.00	21.63	22.12
	12H	20.98	21.55	21.49	22.04	22.60	20.72	21.29	21.23	21.78	22.34
12H	4H	19.77	20.54	20.25	21.02	21.49	19.50	20.27	19.98	20.75	21.22
	6H	20.53	21.16	21.03	21.67	22.16	20.27	20.91	20.78	21.41	21.90
	8H	20.86	21.43	21.37	21.92	22.48	20.61	21.17	21.12	21.66	22.23