

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: P242780

Luminaire Tested: S125DRP-S375D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242780
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-S375D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

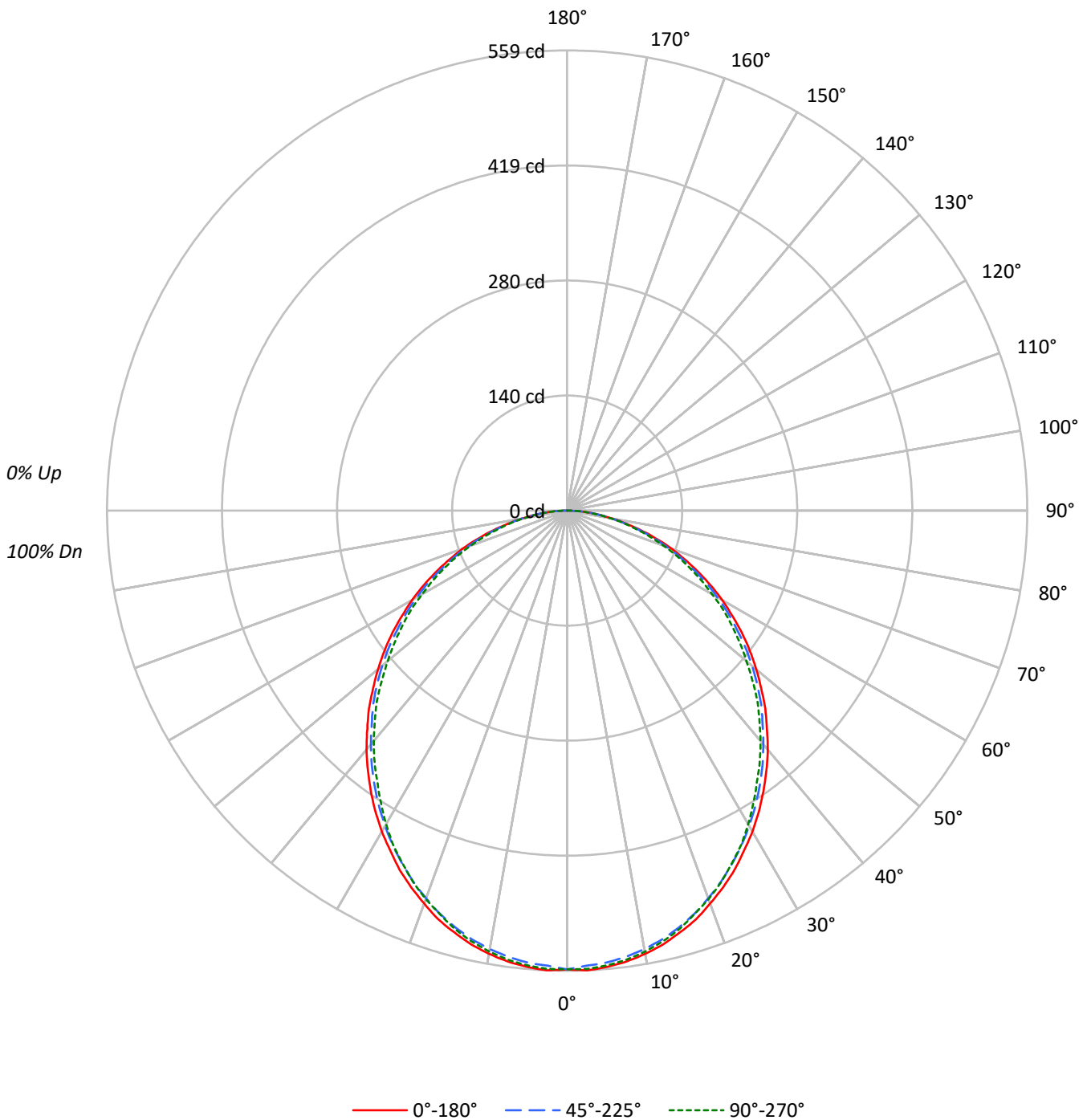
Lumens per Lamp: N/A
Luminaire Lumens: 1450.6 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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					100			
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28					28			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3961	3961	3961
5°	3970	3933	3958
10°	3946	3904	3927
15°	3903	3858	3874
20°	3842	3792	3798
25°	3776	3714	3710
30°	3695	3630	3611
35°	3608	3539	3489
40°	3518	3440	3391
45°	3421	3350	3284
50°	3315	3242	3145
55°	3213	3120	3032
60°	3090	2996	2890
65°	2943	2847	2751
70°	2803	2677	2583
75°	2554	2469	2386
80°	2276	2239	2186
85°	1982	2014	1908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3421 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	3.6
10°-20°	148.6	10.2
20°-30°	219.3	15.1
30°-40°	255.9	17.6
40°-50°	257.0	17.7
50°-60°	225.6	15.6
60°-70°	168.0	11.6
70°-80°	96.0	6.6
80°-90°	27.7	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°	420.5	29.0
0°-40°	676.3	46.6
0°-60°	1158.9	79.9
0°-90°	1450.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1450.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	557	557	557	557	557	
5°	556	556	551	555	555	53
15°	530	529	524	526	526	150
25°	482	479	474	474	473	222
35°	416	414	408	406	402	260
45°	340	339	333	328	327	262
55°	259	258	252	248	245	231
65°	175	174	169	165	164	174
75°	93	92	90	89	87	99
85°	24	25	25	24	23	28
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	557.3	557.3	557.3	557.3	557.3
2.5°	559.1	557.8	553.4	557.8	557.3
5°	556.5	555.6	551.2	555.1	554.7
7.5°	552.5	551.6	546.8	550.7	550.3
10°	546.8	545.9	541.0	544.5	544.1
12.5°	539.7	537.9	533.5	536.2	536.2
15°	530.4	529.1	524.3	526.5	526.5
17.5°	520.7	518.5	513.7	516.3	514.1
20°	508.0	507.1	501.3	504.4	502.2
22.5°	495.2	493.4	488.1	489.9	488.6
25°	481.5	479.3	473.6	474.4	473.1
27.5°	465.6	464.3	458.6	459.0	457.7
30°	450.2	448.9	442.3	441.4	440.0
32.5°	433.4	431.2	425.5	423.7	421.1
35°	415.8	414.0	407.9	405.7	402.1
37.5°	397.7	395.5	389.8	386.7	384.5
40°	379.2	377.0	370.8	366.9	365.5
42.5°	359.4	357.6	351.4	347.9	345.7
45°	340.4	338.6	333.3	328.1	326.7
47.5°	319.7	320.1	313.5	308.2	305.1
50°	299.8	298.5	293.2	287.5	284.4
52.5°	279.6	278.7	272.9	268.1	264.6
55°	259.3	257.9	251.8	247.8	244.7
57.5°	237.7	237.2	231.9	226.6	225.3
60°	217.4	215.6	210.8	206.4	203.3
62.5°	196.2	194.9	190.9	186.1	183.9
65°	175.0	174.2	169.3	165.3	163.6
67.5°	154.3	152.6	149.0	145.5	144.6
70°	134.9	132.7	128.8	126.1	124.3
72.5°	113.8	112.4	110.2	107.1	105.4
75°	93.0	92.2	89.9	88.6	86.9
77.5°	73.6	73.2	71.9	71.0	69.7
80°	55.6	55.6	54.7	54.2	53.4
82.5°	39.7	38.8	38.8	37.9	37.9
85°	24.3	24.7	24.7	24.3	23.4
87.5°	11.9	11.9	11.5	11.5	10.6
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	16.13	17.75	16.50	18.06	18.38	15.80	17.42	16.17	17.74	18.05
	3H	17.90	19.36	18.28	19.69	20.05	17.54	19.00	17.91	19.32	19.68
	4H	18.56	19.94	18.96	20.28	20.66	18.18	19.56	18.58	19.91	20.28
	6H	19.03	20.31	19.45	20.68	21.07	18.67	19.95	19.08	20.31	20.70
	8H	19.19	20.41	19.62	20.80	21.20	18.83	20.05	19.25	20.44	20.84
	12H	19.30	20.47	19.73	20.85	21.28	18.94	20.11	19.37	20.49	20.92
4H	2H	16.71	18.09	17.11	18.43	18.81	16.45	17.83	16.85	18.17	18.55
	3H	18.71	19.86	19.11	20.26	20.66	18.40	19.56	18.81	19.95	20.35
	4H	19.49	20.54	19.92	20.95	21.39	19.18	20.22	19.61	20.63	21.07
	6H	20.10	21.01	20.55	21.45	21.91	19.79	20.70	20.25	21.15	21.60
	8H	20.31	21.16	20.77	21.60	22.07	20.00	20.85	20.46	21.30	21.76
	12H	20.46	21.23	20.94	21.70	22.17	20.16	20.92	20.64	21.40	21.87
8H	4H	19.78	20.63	20.24	21.08	21.54	19.50	20.35	19.96	20.80	21.26
	6H	20.51	21.22	21.00	21.71	22.18	20.24	20.95	20.73	21.44	21.91
	8H	20.79	21.42	21.30	21.93	22.42	20.52	21.16	21.03	21.67	22.15
	12H	21.02	21.58	21.52	22.07	22.63	20.76	21.32	21.26	21.81	22.37
12H	4H	19.81	20.58	20.29	21.05	21.52	19.54	20.30	20.02	20.78	21.25
	6H	20.56	21.20	21.07	21.71	22.19	20.30	20.94	20.81	21.45	21.93
	8H	20.90	21.46	21.40	21.95	22.51	20.64	21.21	21.15	21.70	22.26